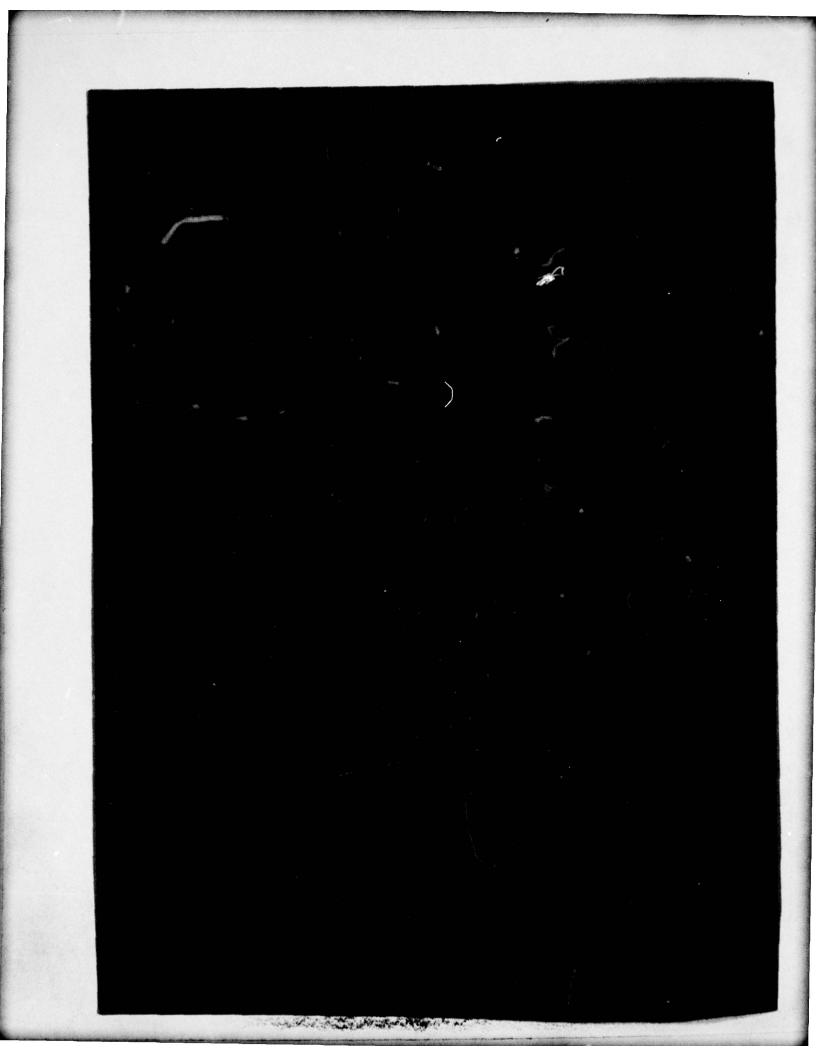
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DEPARTMENT OF THE ARMY WATERWAYS EXPERIMENT STATION, CORPS OF ENGINEERS P. O. BOX 631

VICKSBURG. MISSISSIPPI 39180

IN REPLY REFER TO, WESEV

15 March 1979

SUBJECT: Transmittal of Miscellaneous Paper D-78-7

TO: All Report Recipients

- 1. The miscellaneous paper transmitted herewith contains the results of one of the research efforts (work units) of the Corps of Engineers' Dredged Material Research Program (DMRP). This study was conducted under the direction of the Habitat Development Project (HDP) of the DMRP. The HDP had as its main objectives the development of wetland and upland habitats on dredged material and the evaluation of the impact of disposal in shallow water and upland sites.
- 2. This report, "Annotated Tables of Vegetation Growing on Dredged Material Throughout the United States," (Work Unit 4F05) presents a listing of plant species found on 202 dredged material islands and near-shore disposal sites during the course of the DMRP. Tabular material is presented by common and scientific name for 1120 species, and information is provided regarding the propagation of selected species.
- 3. The material presented in this report provides a rapid reference to the wide variety of plant species found growing voluntarily on dredged material. The natural occurrence of such species on dredged material is useful information in the selection of plant species for use in habitat development.

JOHN L. CANNON

Colonel, Corps of Engineers Commander and Director



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20. ABSTRACT (Continued).

CONT

> Six tables present the following data:

- a. An anotated listing by common name of 1120 plant species occurring on dredged material;
- b. A selection of 361 upland and high marsh plant species and
 115 wetland plant species that may be planted on dredged material
 for wildlife habitat enhancement and/or substrate stabilization;
- c. Matrixes of the 361 upland and the 115 wetland plant species; and
- d. An alphabetical group listing by scientific name and authority of the 1120 plant species occurring on dredged material.

These data were prepared to provide managers with data pertinent to planned plant establishment on wetland and upland dredged material islands and sites throughout the United States.

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Preface.

This report was written as part of Task 4F, "Island Habitat Development," of the Habitat Development Project (HDP), Dredged Material Research Program (DMRP). The DMRP was sponsored by the Office, Chief of Engineers, U. S. Army, and was assigned to the Environmental Laboratory (EL) of the U. S. Army Engineer Waterways Experiment Station (WES), Vicksburg, Miss.

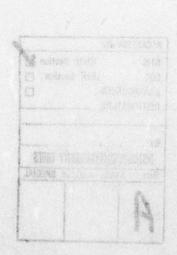
Manager of Task 4F was Ms. Mary C. Landin, who prepared this report. Work progressed under the general supervision of Dr. H. K. Smith, Manager of the HDP, Dr. Roger T. Saucier, Special Assistant for Dredged Material Research, and Dr. John Harrison, Chief, EL.

Director of WES during the preparation of this report was COL John L. Cannon, CE. Technical Director was Mr. F. R. Brown.

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Contents

		Page
Preface .	are a constant of the constant of the constant	1
Background	d 1	3
Explanation	on of Tables	4
Reference	s 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	6
Table 1.	Annotated listing by common names of plant species	
Table 1.	on dredged material islands and sites	10
Table 2.	Selected upland plant species for habitat development on dredged material sites	67
Table 3.	Matrix of upland plant species	89
Table 4.	Recommended propagules and techniques for selected marsh species	100
Table 5.	Selected marsh species and their general growth requirements and characteristics	105
Table 6.	Plant species identified and/or collected on dredged material islands and sites by scientific name,	
	authority, and common name	110



ANNOTATED TABLES OF VEGETATION GROWING ON DREDGED MATERIAL THROUGHOUT THE UNITED STATES

Background

- 1. This document presents data collected on the vegetation of dredged material islands and sites in Corps of Engineer-maintained water-ways throughout the United States. These data were collected as part of the Habitat Development Project research in the Dredged Material Research Program (DMRP). More than 2000 dredged material islands and numerous dredged material sites have been built in the past 100 years; 202 of these were intensively sampled and all vegetation recorded, identified, and/or collected as voucher specimens.
- 2. Vegetation plays a key role in the ability of wildlife to utilize any habitat, and dredged material habitat is no exception. Efforts to determine what vegetation is present, its use by wildlife, its role in site stabilization, and the rates of colonization and succession of vegetation on these areas have been made by the DMRP in order to better understand management needs of the dredged material islands and sites. Islands were found to be of importance, and indeed critical habitat in many instances, to a unique group of wildlife species, the colonial nesting sea and wading birds (pelicans, cormorants, herons, egrets, ibises, spoonbills, gulls, terns, and skimmers) (Soots and Landin 1978). Islands and other dredged material sites are also utilized by many waterfowl, shorebird, songbird, raptor, reptile, rodent, small mammal, and invertebrate species as well.
- 3. Over 1000 dredged material islands and sites were covered by aerial surveys to determine wildlife use, and islands with and without intensive wildlife use (such as by bird colonies) were selected for detailed scrutiny. Many factors were found to be influencing colonization and succession rates of vegetation on the islands and sites selected:
 - a. Location in the waterway.
 - b. Island or site size and configuration.
 - c. Island height and gradient.

- d. Plant propagule sources.
 - (1) Existing on the site.
 - (2) On adjacent or nearby locations.
- e. Wildlife and human utilization of the island or site.
- f. Salinity.
- g. Currents, waves, and tidal actions.
- h. Climate.
 - (1) Rainfall.
 - (2) Day length (photoperiods).
 - (3) Temperature (thermoperiods).

Explanation of Tables

- 4. With the exception of the marsh plant species tables, the tables in this report are presented by growth habit groups: ferns and their allies, grasses, aquatic and low marsh plants not included elsewhere, herbs, vines, shrubs and small trees, and large trees. Table 1 presents an annotated listing by common name for easy reference to 1120 plant species occurring on dredged material. Frequency and occurrence are briefly noted. Plant species were found on dredged material in the following areas:
 - a. Connecticut -- 2 islands.
 - b. Florida -- 45 islands.
 - c. Great Lakes -- 23 islands and sites.
 - d. Louisiana -- 1 site.
 - e. Maryland -- 5 sites.
 - f. Mississippi -- 2 islands.
 - g. New Jersey -- 20 islands.
 - h. North Carolina -- 25 islands.
 - i. Pacific Northwest -- 17 islands.
 - j. Texas -- 36 islands.
 - k. Upper Mississippi River -- 26 islands and sites.
- 5. Table 2 presents a selection of 361 upland and high marsh plant species that may be planted on dredged material for wildlife habitat enhancement and substrate stabilization. Table 3 presents a matrix of

upland plants based on the same 361 species. Certain pertinent information for the manager is presented, such as best propagule types and propagule collection periods, temporary storage requirements, and planting periods. Also presented are species range, heights, growth habits, wild-life value, salinity tolerances, and pertinent remarks concerning cultivation value, pest species, and habitat occupation. The species occurring on dredged material are noted as well as their availability from commercial sources. Plant species were selected based on their food, cover, and breeding value for wildlife, and for stabilization of substrate.

- 6. Tables 4 and 5 present pertinent information beneficial to site planners in wetlands habitats. Recommended propagules, planting and storage techniques, ranges, soil tolerances, moisture requirements, wild-life value, nuisance potential, and soil stabilization abilities are given, as well as pertinent remarks concerning individual values and benefits to be derived from each species. A total of 115 species are listed and were selected for their ability to grow on wetlands sites including dredged material, their stabilization ability, and their wildlife value. Many other species have potential use on dredged material but are not given because growth and survival on dredged material are not known.
- 7. Table 6 presents an alphabetical, grouped listing by scientific name and authority of the 1120 species occurring on dredged material for quick botanical reference.
- 8. These data were prepared to provide managers with data pertinent to planned plant establishment on wetland and upland dredged material islands and sites throughout the United States. The reader is referred to Coastal Zone Resources Division (CZRD) (1978), Environmental Laboratory (1978), Hunt et al. (1978), and Soots and Landin (1978) for more detailed discussion and information concerning specific habitat recommendations.
- 9. Published sources of plant species lists used in this report are DMRP reports by Chaney et al. (1978), Coastal Zone Resources Corporation (CZRC) (1977), Lewis and Lewis (1978), McCaffrey and Buckley (1978), Parnell et al. (1978), Peters et al. (1978), Scharf et al. (1978), Thompson and Landin (1978), and Ziegler and Sohmer (1977). Other species listed are from the author's unpublished data and observations.

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Table 1 M Table

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Annotated Listing by Common Names of Plant Species on Dredged Material Islands and Sites

FERNS AND THEIR ALLIES

Bracken fern (Pteridium aquilinum). Uncommon, in open areas and thickets.

Christmas fern (Polystichum acrostichoides). Uncommon, in woods and high places.

Feather moss (Eurhynchium oreganum). Uncommon.

Field horsetail (Equisetum arvense). Uncommon to frequent, in sandy areas.

Grape fern (Botrychium neglectum). Uncommon, in grassy woods and low areas.

Hay-scented fern (Dennstaedtia punctilobula). Uncommon, in mixed woodland

Juniper haircap moss (Polytrichum juniperinum). Uncommon.

Lady fern (Athyrium filix-femina). Uncommon, in grassy woods and low areas.

Licorice fern (Polypodium glycyrrhiza). Uncommon on trees.

Little shaggy moss (Rhytidiadelphus loreus). Uncommon.

Maiden hair fern (Polypodium vulgare). Uncommon on trees and rocks.

Marsh horsetail (Equisetum palustre). Uncommon in wet areas.

Marsh shield fern (Dryopteris thelypteris). Uncommon in wooded wet areas.

Mountain wood fern (Dryopteris austriaca). Uncommon in pines and woods.

Net-veined chain fern (Lorinseria areolata). Uncommon in moist soils.

Rattlesnake fern (Botrychium virginianum). Uncommon in woods.

Resurrection fern (Polypodium polypodiodes). Uncommon on trees.

Scouring rush (Equisetum hyemale). Uncommon to common in wet areas.

Sensitive fern (Onoclea sensibilis). Uncommon in moist soils and low areas.

Silvery fern (Athyrium thelypteroides). Rare in moist shaded areas.

Stairstep moss (Hylocomium splendens). Uncommon.

Sword fern (Polystichum munitum). Uncommon in pines and conifers.

GRASSES

American beach grass (Ammophila breviligulata). Common in sandy coastal areas in eastern U.S. Tolerates some salinity.

(Sheet 1 of 57)

- American dune grass (Elymus mollis). Common grass of coastal dunes and sandy beaches over entire U.S. Tolerates some salinity and drought.
- American mannagrass (Glyceria grandis). Common grass of freshwater marshes in eastern U.S.
- Autumn bentgrass (Agrostis perennans). Common eastern upland grass with highly variable growth habits.
- Bahia grass (Paspalum notatum). Uncommon to common introduced, cultivated pasture grass of southern U.S.
- Barley (Hordeum vulgare). Uncommon to common cultivated cereal grass of northern U.S.
- Barnyard grass (Echinochloa crusgalli). Frequent grass of moist soils in entire U.S. Cultivated for waterfowl food. Tolerates slight salinity.
- Beach panic grass (Panicum amarum). Common grass in wet sandy areas. Tolerates some salinity.
- Beaked panic grass (Panicum anceps). Uncommon to common in moist sandy areas in eastern U.S.
- Big bluestem (Andropogon gerardi). Common cultivated prairie grass in northern U.S.
- Big cordgrass (Spartina cynosuroides). Common in coastal marshes in eastern U.S. Tolerates some salinity.
- Bluegrass (Poa annua). Common cultivated upland grass in eastern U.S.
- Bluejoint reedgrass (Calamagrostis canadensis). Frequent grass in freshwater marshes and meadows in eastern U.S.
- Bottlebrush (Hystrix patula). Uncommon grass in woods and thickets of eastern U.S.
- Brome grass (Bromus inermus). Common upland grass in meadow and open areas over entire U.S.
- Broomsedge (Andropogon virginicus). Frequent grass of open waste areas over entire U.S.
- Brownseed paspalum (Paspalum) plicatulum). Uncommon tropical grass in open wet areas in deep south.
- Buffelgrass (Cenchrus ciliaris). Uncommon introduced grass of open sandy areas in eastern U.S.
- Bull paspalum (<u>Paspalum</u> <u>boscianum</u>). Common grass in wet open areas over entire U.S.
- Bushy beardgrass (Andropogon glomeratus). Common grass in marshes and swamps in southern U.S.
- Canada bluegrass (Poa compressa). Uncommon introduced grass cultivated for pastures in northern U.S.

(Sheet 2 of 57)

- Canadian wild rye (Elymus canadensis). Frequent grass over entire U.S. in wet and upland areas.
- Carolina canary grass (Phalaris caroliniana). Uncommon to common grass in old fields and wet soils of eastern U.S.
- Catchfly grass (Leersia lenticularis). Uncommon grass in eastern U.S. in ditches, swamps, and creek banks.
- Cheat grass (Bromus tectorum). Frequent grass in upland soils over entire U.S.
- Ciliate paspalum (Paspalum ciliatifolium). Uncommon grass in eastern U.S. in open areas.
- Coast arm-grass (Brachiaria platyphylla). Uncommon grass in sandy coastal areas. Tolerates slight salinity.
- Coast muhly (Muhlenbergia capillaris). Common grass in open woods of southern U.S.
- Coast paspalum (Paspalum setaceum). Uncommon grass of sandy open woods in southern U.S.
- Coast sandspur (Cenchrus incertus). Common grass of sandy beaches and islands in eastern U.S. Tolerates some salinity.
- Common Bermuda grass (Cynodon dactylon). Abundant grass of entire U.S. in moist, marshy areas. Tolerates some salinity.
- Common velvetgrass (Holcus lanatus). Common in sandy soils. Introduced, sometimes cultivated as pasture grass.
- Corn (Zea mays). Cultivated cereal grass in entire U.S. Some varieties bred to tolerate salinity.
- Cutgrass (Leersia virginica). Common grass in moist soils in eastern U.S.
- Dallis grass (Paspalum ditatatum). Frequent grass of southern U.S. in most soils.
- Deertongue (Muhlenbergia rigens). Uncommon to common grass in dry upland areas of eastern U.S.
- Dropseed (<u>Muhlenbergia</u> <u>frondosa</u>). Common grass of interior northern U.S. in most soils.
- Dune sandspur (Cenchrus tribuloides). Common on sandy beaches and dunes in eastern U.S. Tolerates salinity and drought.
- European beach grass (Ammophila arenaria). Uncommon introduced grass of coastal dunes and beaches. Tolerates salinity and drought.
- Fall witchgrass (Leptoloma cognatum). Uncommon grass in dry soil and sandy fields over entire U.S.
- Fescue (Festuca bromoides). Uncommon grass in upland sandy areas in eastern U.S.
- Fescue (Festuca octoflora). Frequent grass in open areas over entire U.S.

(Sheet 3 of 57)

- Few-flowered panic grass (Panicum oligosanthes). Uncommon grass of sandy moist woods and thickets in eastern U.S.
- Field sandspur (Cenchrus pauciflorus). Frequent grass in waste places over entire U.S.
- Fingergrass (Chloris petraea). Common grass of eastern coastal plains in sandy open areas.
- Florida dropseed (Sporobolus domingensis). Uncommon tropical grass of south Florida coastal beaches and islands.
- Fowl meadowgrass (Poa patustris). Common upland grass in open areas of northern interior U.S.
- Foxtail barley (Hordeum jubatum). Abundant grass in waste places in entire U.S.
- Foxtail bristlegrass (Setaria geniculata). Uncommon grass in open areas, and in salt marshes in eastern U.S. Tolerates some salinity.
- Frank's lovegrass (Eragrostis frankii). Common grass of sandy bars and river banks in eastern U.S.
- Giant bristlegrass (Setaria magna). Uncommon grass in moist areas in eastern U.S.
- Giant reed (Arundo donax). Common sub-tropical, introduced, ornamental grass in southern U.S. & California
- Goose grass (Elusine indica). Common grass in open waste areas over entire U.S.
- Green bristlegrass (Setaria viridis). Common grass in waste areas in northern U.S.
- Gulf cordgrass (Spartina spartinae). Uncommon grass in saltmarshes of gulf coast. Tolerates salinity.
- Gulfdune paspalum (Paspalum monostachyrum). Rare grass in coastal dunes & moist areas of south Fla. & Texas. Tolerates some salinity.
- Hairgrass (Agrostis scabra). Uncommon grass of upland areas over entire U.S.
- Hairgrass (Aira elegans). Uncommon grass of coastal plain in southeast U.S.
- Hairgrass (Aira praecox). Uncommon grass of east & west coasts in sandy open areas. Tolerates slight salinity.
- Hooded windmill grass (Chloris cucullata). Uncommon prairie grass in dry soils in southcentral plains states.
- Indian grass (Sorghastrum nutans). Common prairie grass in dry soils over entire U.S.
- Italian ryegrass (Lolium multiflorum). Abundant, introduced, cultivated cereal grass over entire U.S., especially southern U.S.

(Sheet 4 of 57)

- Japanese chess (Bromus japonicus). Common grass in upland open areas over entire U.S.
- Johnson grass (Sorghum halepense). Abundant grass in upland waste areas in southern U.S.
- Jungle rice (Echinochloa colonum). Common introduced grass in ditches and moist areas in southern U.S.
- Kentucky bluegrass (Poa pratensis). Abundant grass in upland areas. Used for lawns and pastures.
- King Ranch bluestem (Bothriochloa ischaemum). Uncommon grass of upland open areas in south Texas.
- Knotgrass (Paspalum distichum). Uncommon grass in moist or flooded areas over southern and western U.S. Tolerates slight salinity.
- Lacegrass (Eragrostis capillaris). Common grass in dry, open areas in eastern U.S.
- Large crabgrass (<u>Digitaria sanguinalis</u>). Abundant grass in disturbed soils in southern U.S.
- Little barley (Hordeum pusillum). Common grass in dry, upland areas over entire U.S. Tolerates alkaline soils.
- Little bluestem (Andropogon scoparius). Common grass in dry, open areas over entire U.S. except far west.
- Little foxtail grass (Setaria glauca). Common grass in waste areas over entire U.S.
- Lovegrass (Eragrostis ciliaris). Frequent grass on sandy shores and open areas in southeastern U.S.
- Lovegrass (Eragrostis trichodes). Uncommon grass of interior plains in sand barrens and open areas.
- Meadow barley (Hordeum brachantherum). Uncommon grass in marshy areas in western U.S.
- Mediterranean lovegrass (Eragrostis barrelieri). Uncommon introduced grass in waste areas of southwest U.S.
- Melic grass (Melica mutica). Uncommon grass in woods and thickets in southeastern U.S.
- Narrowleaf panic grass (Panicum angustifolium). Uncommon grass in sandy pine woods and coastal areas of eastern U.S.
- Nash windmill grass (Chloris latisquamea). Uncommon grass in upland areas of Texas and Arizona.
- Natal grass (Rhynchelytrum repens). Uncommon introduced grass in upland waste areas in southern U.S.
- Orchard grass (Datylis glomerata). Common grass in open areas over entire U.S.

(Sheet 5 of 57)

- Pacific cordgrass (Spartina foliosa). Abundant grass of west coast saltmarshes. Tolerates sea water and flooding.
- Panic grass (Panicum clandestinum). Common grass in sandy moist areas in eastern U.S.
- Perennial ryegrass (Lolium perenne). Common grass of upland areas in entire U.S.
- Pink natal grass (Rhynchelytrum roseum). Uncommon introduced grass in sandy pastures and meadows of southeastern U.S.
- Plains bristlegrass (Setaria levcopila). Common upland grass of interior U.S.
- Prairie cordgrass (Spartina pectinata). Common in marsh areas over entire U.S. Tolerates some salinity.
- Prairie three-awn (Aristida intermedia). Uncommon grass in wet sandy soils of Mississippi River valley.
- Prairie three-awn (Aristida oligantha). Common grass in dry open areas in eastern and far western U.S.
- Prairie wedgescale (Sphenopholus obtusata). Common grass in open moist areas and old fields over entire U.S.
- Purple lovegrass (Eragrostis pectinacea). Common grass in open waste areas over entire U.S.
- Purple lovegrass (Eragrostis spectabilis). Common grass in sandy areas in eastern and southwestern U. S.
- Quackgrass (Agropyron repens). Abundant in open waste areas over entire U.S.
- Rabbitfoot polypogon (Polypogon monspeliensis). Abundant introduced grass in waste areas over coastal and midwestern U.S.
- Rattail fescue (Festuca myuros). Uncommon introduced grass in open coastal areas of U.S.
- Red lovegrass (Eragrostis oxylepis). Common grass in sandy soils of southern U.S.
- Red fescue (Festuca rubra). Uncommon grass in open moist areas of eastern U.S.
- Redtop (Agrostis gigantea). Abundant grass in cultivation for pastures and lawns in northern U.S.
- Redtop bentgrass (Agrostis alba). Abundant introduced grass in pastures and lawns in northern U.S.
- Reed bentgrass (Calamagrostis inexpansa). Common grass in marshes in northern U.S.
- Reed canary grass (Phalaris arundinacea). Common grass in moist areas over entire U.S.

(Sheet 6 of 57)

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- Rescue grass (Bromus catharticus). Frequent grass in pastures and wast areas in southern U.S.
- Rhode Island bentgrass (Agrostis tenius). Abundant grass in lawns & meadows in northern U.S.
- Rice cutgrass (Leersia oryzoides). Uncommon grass in wet and flooded soils of southern U.S.
- Roundseed panic grass (Panicum spaerocarpon). Uncommon grass in sandy soils in eastern U.S.
- Running bentgrass (Agrostis stolonifera). Uncommon grass in moist areas on north Atlantic coast.
- Ryebrome (Bromus secalinus). Abundant introduced grass in waste areas over entire U.S.
- Saltgrass (Distichlis spicata). Abundant grass of high saltmarshes in eastern U.S. Tolerates salinity.
- Saltmeadow cordgrass (Spartina patens). Abundant grass of high saltmarshes, meadows, and dunes in eastern U.S. Tolerates some salinity.
- Sand dropseed (Sporobolus crytandrus). Frequent grass in sandy open areas over entire U.S.
- Sand grass (<u>Triplasis purpurea</u>). Common grass in dry sand on east and gulf coasts and midwest. Tolerates drought and some salinity.
- Sandbar (Cenchrus longispinus). Common grass in sandy open areas over entire U.S.
- Sandspur (Cenchrus echinatus). Uncommon tropical grass in open and waste areas in deep south.
- Schrader's rescue grass (Bromus unioloides). Uncommon introduced grass cultivated for winter forage in U.S.
- Sea oats (<u>Uniola paniculata</u>). Uncommon grass of coastal dunes in eastern U.S. Tolerates some salinity and drought.
- Seashore bluegrass (Poa macrantha). Common grass on sand dunes along Pacific coasts. Tolerates drought.
- Seashore paspalum (Paspalum vaginatum). Frequent grass on seashores and brackish sands in southeast U.S. Tolerates some salinity.
- Sheep panic grass (Panicum ovinum). Rare grass in open areas in lower Mississippi River valley.
- Shoredune panic grass (Panicum amarulum). Common grass on sandy shores and dunes in southeast U.S.
- Shoregrass (Mononthochloe littoralis). Abundant grass on mud and sand shores and tidal flats in deep south. Tolerates salinity.
- Sicklegrass (<u>Parapholis incurva</u>). Uncommon introduced grass on mud flats and in salt marshes on east and west coasts. Tolerates salinity.

(Sheet 7 of 57)

- Silver bluestem (Bothriochloa saccharoides). Uncommon tropical grass in moist areas of Florida and Texas.
- Silver hairgrass (Aira caryophylla). Uncommon grass in open dry areas along U.S. coasts.
- Slender wheatgrass (Agropyron trachycaulum). Uncommon upland grass in open areas in northern U.S.
- Smooth cordgrass (Spartina alterniflora). Abundant grass of eastern saltmarshes. Tolerates salt water and flooding.
- Smooth crabgrass (<u>Digitaria ischaemum</u>). Common grass in disturbed soils in eastern U.S.
- Smooth creeping lovegrass (Eragrostis hypnoides). Common grass on sandy river banks and wet areas over entire U.S.
- Smutgrass (Sporobolus poiretii). Frequent introduced grass on pastures and waste areas in southern U.S.
- Soft chess (Bromus mollis). Common introduced grass in waste areas in northern U.S.
- Spike bentgrass (Agrostis exarata). Frequent grass in moist open ground in western U.S.
- Splithead bluestem (Andropogon ternarius). Uncommon grass in upland areas in southeast U.S.
- Spreading witchgrass (Panicum dichotomiflorum). Common grass in open moist sandy areas of eastern U.S.
- St. Augustine grass (Stenotophrum secundatum). Abundant deep south lawn grass.
- Switchgrass (Panicum virgatum). Common grass of moist areas in southern
- Tall dropseed (Sporobolus asper). Common grass in prairies and sandy meadows over entire U.S.
- Tall fescue (Festuca arundinacea). Frequent cultivated grass of pastures and meadows overentire U.S.
- Texas crabgrass (<u>Digitaria texana</u>). Uncommon grass in disturbed soils in south Texas.
- Thickspike wheatgrass (Agropyron dasystachyum). Uncommon grass on plains and sandy beaches in western U.S.
- Three-awn (Aristida longespica). Uncommon grass in sandy soils in eastern U.S.
- Tickle grass (Agrostis hyemalis). Uncommon grass in upland areas in eastern U.S.
- Timothy (Phleum pratense). Common cultivated grass in pastures in northern U.S.

(Sheet 8 of 57)

- Torpedo grass (Panicum repens). Common grass of freshwater marshes in eastern U.S.
- Tropic dropseed (Sporobolus indicus). Uncommon introduced grass in waste areas in deep south.
- Tropic sprangletop (Leptochloa virgata). Uncommon tropical grass in open areas in deep south.
- Tufted hairgrass (Deschampsia caespitosa). Common grass of low marshes in Pacific northwest.
- Tumble lovegrass (Eragrostis sessilispica). Uncommon upland grass in sandy prairies in Texas, New Mexico, and Oklahoma.
- Vasey grass (Paspalum urvillei). Common grass of ditches and waste areas in southern U.S.
- Virginia dropseed (Sporobolus virginicus). Common grass of sandy beaches in eastern U.S.
- Walter's millet (Echinochloa walteri). Common cultivated grass in moist soils in eastern U.S. Grown as waterfowl food.
- Water panic grass (Panicum paludevagum). Common grass in wet places in southern U.S.
- Wedgescale (Sphenopholus intermedia). Common grass in moist woods and thickets over entire U.S.
- Wheatgrass (Agropyron intermedium). Uncommon introduced grass cultivated for pastures and rangeland in Pacific northwest.
- White tridens (Tridens albescens). Uncommon grass in plains and open woods in central southwest U. S.
- Whorled dropseed (Sporobolus pyramidatus). Uncommon grass on sandy shores and waste areas in deep south, Texas, and Florida.
- Wild chess (Bromus kalmii). Common grass in dry and sandy soils in northeast U.S.
- Wild rye (Elymus virginicus). Frequent grass in moist areas and low woods over entire U.S.
- Wild timothy (Muhlenbergia racemosa). Frequent grass in most soils over entire U.S. except southeast.
- Witchgrass (Panicum capillare). Frequent upland grass in open waste areas over entire U.S.
- .oolly panic grass (Panicum longinosum). Common grass in sandy pine and oak woods in southeast U.S.
- ---- (Microstegium vimineum). Uncommon introduced grass on shaded banks and roadsides in eastern U.S.
- ---- (Opismenus setarius). Uncommon grass in shaded coastal areas in southeastern U.S.

(Sheet 9 of 57)

AQUATIC AND LOW MARSH PLANTS

- Alligator weed (Althernanthera philoxeroides). Common freshwater emergent marsh plant in southeastern U.S.
- Arrow arum (Peltandra virginica). Common freshwater interior and coastal emergent plant in eastern U.S.
- Arrowhead (Sagittaria spatulata). Uncommon freshwater emergent plant in eastern U.S. Waterfowl food.
- Awl fruited sedge (Carex stipata). Uncommon plant in swamps and wet meadows over entire U.S.
- Awned cyperus (Cyperus inflexus). Uncommon plant in wet sandy soils over entire U.S. except far west.
- Awned nutsedge (Cyperus aristatus). Uncommon fragrant plant in wet sandy soils over entire U.S. except far west.
- Baldwin spike rush (<u>Eleochoris</u> <u>baldwinii</u>). Uncommon plant in wet soils in eastern U.S.
- Baltic rush (Juncus balticus). Uncommon interior U.S. marsh plant in fresh and alkali marshes over entire U.S.
- Bigelow's glasswort (Salicornia bigelowii). Common plant of coastal salt marshes. Tolerates high salinities & tides.
- Black needlerush (Juncus roemerianus). Common brackish to salt marsh plant in eastern U.S.
- Black rush (Juncus gerardi). Uncommon in coastal brackish marshes in northern U.S.
- Black smartweed (<u>Polygonum paranychia</u>). Uncommon plant in moist areas in northern U.S.
- Blunt sedge (Carex tribuloides). Uncommon bright green plant in meadows in Florida, Arizona, and gulf coast.
- Blunt spike rush (Eleocharis obtusa). Uncommon plant in interior freshwater marshes over entire U.S.
- Broadleaf arrowhead (Sagittaria latifolia). Abundant emergent plant in freshwater marshes over entire U.S.
- Broadleaf cattail (Typha latifolia). Abundant emergent plant in freshwater marshes over entire U.S.
- Bushy knotweed (Polygonum ramosissimum). Common plant in saline soils over entire U.S., especially on coasts.
- Cattail sedge (Carex typhina). Uncommon emergent plant in swamps in eastern U.S.
- Chufa (Cyperus esculentus). Frequent plant in freshwater marshes over entire U.S. except west. Abundant in deep south. Cultivated for waterfowl.

(Sheet 10 of 57)

- Climbing false buckwheat (Polygonum scandens). Uncommon in open woods and thickets over entire U.S.
- Coarse cyperus (Cyperus odoratus). Uncommon plant in wet soils over entire U.S. except far west.
- Coastal sedge (Carex phyllomanica). Uncommon plant in coastal fresh marshes in east and west coasts.
- Common threesquare (Scirpus americanus). Common emergent plant in interior & coastal fresh, brackish, and salt marshes over entire U.S. Tolerates some salinity.
- Common spike rush (Eleocharis palustris). Frequent emergent plant in interior and coastal fresh and brackish marshes over entire U.S., primarily northern U.S. Tolerates salinity.
- Crested sedge (<u>Carex cristatella</u>). Uncommon plant in low meadows and thickets in northern U.S.
- Dark green bulrush (Scirpus atrovirens). Common emergent plant in swamps in eastern U.S. Frequent in south along streams.
- Dotted smartweed (Polygonum punctatum). Common plant in freshwater marshes in eastern U.S.
- Dry-spiked sedge (Carex siccata). Uncommon plant in fields and meadows in northern and southwestern U.S.
- Dudley's rush (Juncus dudleyi). Uncommon to common plant in damp soil and open areas over entire U.S.
- Dwarf spike rush (Eleocharis parvula). Uncommon to common emergent plant of coastal and interior fresh and brackish marshes in eastern U.S. Rare on west coast.
- Eel grass (Zostera marina). Common marine submergent in waters adjoining dredged material islands and deposits.
- Erect smartweed (Polygonum erectum). Common plant in dry or moist soils in waste places in eastern U.S.
- European glasswort (Salicornia europaea). Common marsh plant in coastal and interior salt marshes over entire U.S. Tolerates high salinities.
- Fimbry (Fimbristylis castanea). Common in coastal brackish and salt marshes in eastern U.S.
- Fimbrystilis (Fimbristylis spadicea). Abundant in interior and coastal fresh and brackish marshes in eastern U.S.
- Flat nutsedge (Cyperus compressus). Uncommon plant in fields and waste places in eastern U.S.
- Flat nutsedge (Cyperus polystachyos). Uncommon plant in wet fields and meadows over entire U.S. except far west.
- Fox sedge (Carex vulpinoidea). Uncommon to common plant in swamps and wet meadows in eastern U.S.

(Sheet 11 of 57)

- Globe nutsedge (Cyperus ovularis). Uncommon plant in fields and meadows in eastern U.S.
- Grassleaf rush (Juncus marginatus). Uncommon plant in grassy areas in eastern U.S.
- Greenish-white sedge (Carex albolutescens). Uncommon plant in wet soil along inland lakes and east and west coasts.
- Hairy fruited sedge (Carex laeviconica). Uncommon in marshes and wet meadows in eastern U.S. and Pacific northwest.
- Hardstem bulrush (Scirpus acutus). Uncommon plant in fresh and brackish marshes over entire U.S.
- Jaumea (Jaumea carnosa). Uncommon plant in coastal salt marshes on west coast.
- Knotted rush (Juncus nodosus). Rare to uncommon in moist areas in northern U.S. and in Nevada.
- Large-headed sedge (Carex macrocephala). Uncommon plant in fresh marshes in western U.S.
- Lady's thumb (Polygonum persicaria). Common introduced plant in waste places over entire U.S.
- Least spike rush (Eleocharis acicularis). Common emergent plant of freshwater marshes in northeastern U.S.
- Lilaeopsis (Lilaeopsis occidentalis). Uncommon creeping plant in mud by rivers, brackish and salt marshes along east and gulf coast.
- Lyngby's sedge (Carex lyngbyei). Common plant in coastal brackish and salt marshes on west coast.
- Manatee grass (Syringodium filiforme). Uncommon marine submergent plant adjoining dredged material islands in southern waters.
- Marsh boltonia (Boltonia asteroides). Common plant in freshwater marshes over entire U.S.
- Marsh cress (Rorippa islandica). Uncommon introduced plant on wet shores and in waste areas in northeastern U.S.
- Marsh dayflower (Aneilema keisak). Uncommon reclining plant in freshwater marshes of southeastern U.S.
- Marsh smartweed (Polygonum coccineum). Common emergent plant in freshwater marshes in eastern U.S.
- Marsh pepper (Polygonum hydropiper). Frequent emergent plant in freshwater marshes of eastern U.S.
- Muhlenberg's sedge (Carex muhlenbergii). Uncommon in fields and meadows in eastern U.S.
- Muskingum sedge (Carex muskingumensis). Uncommon in moist woods and thickets in northcentral U.S.

(Sheet 12 of 57)

- Naiad (Najas gracillima). Common floating plant in fresh to brackish marshes in eastern U.S. (adjacent to dredged material islands and washing onto islands).
- Narrowleaf arrowhead (Sagittaria rigida). Uncommon emergent plant in fresh marshes of eastern U.S.
- Narrowleaf cattail (Typha angustifolia). Common emergent plant in fresh and brackish coastal marshes of eastern U.S. Also known as saltwater cattail.
- Nodding smartweed (Polygonum lapathifolium). Abundant plant in freshwater marshes and wet ground over entire U.S. Occurs in low meadows.
- Nutsedge (Cyperus articulatus). Uncommon plant in wet fields in eastern U.S.
- Nutsedge (Cyperus linguloris) Uncommon plant in fields and meadows in eastern U.S.
- Nutsedge (Cyperus planifolius). Uncommon plant in wet soils in eastern U.S.
- Nutsedge (Cyperus virens). Uncommon plant in wet fields and meadows in eastern U.S.
- Nuttall's sedge (Cyperus filicinis). Uncommon plant in salt marshes on east and gulf coasts.
- Olney's threesquare (Scirpus olneyi). Common plant in brackish marshes in west and midwest. Frequent on west coast. Tolerates some salinity.
- Oneflower nutsedge (Cyperus uniflorus). Uncommon plant in fields & meadows in eastern U.S.
- Pacific sedge (<u>Carex</u> <u>obnupta</u>). Common plant in fresh to brackish marshes on west coast. Tolerates slight salinity.
- Pennsylvania smartweed (Polygonum pennsylvanicum). Common plant in fresh marshes in eastern U.S.
- Pennywort (<u>Hydrocotyle verticillata</u>). Abundant plant in sandy coastal marshes in eastern U.S.
- Pickerelweed (Pontederia cordata). Common emergent plant in freshwater marshes of eastern U.S.
- Pointed sedge (Carex scoparia). Uncommon plant in moist soil in northwestern U.S. and southeastern U.S.
- Porcupine sedge (Corex hystericina). Uncommon plant in swamp and low meadows in eastern and southwestern U.S.
- Prostrate knotweed (<u>Polygonum aviculare</u>). Common plant in sandy soils in fresh and brackish areas over eastern U.S. Frequent on some dredged material islands.

(Sheet 13 of 57)

- Purple nutsedge (Cyperus rotundus). Abundant plant in most soils, wet or dry, over entire U.S. except far west.
- Red-rooted sedged (Cyperus erythrorhizos). Common plant in freshwater marshes in eastern U.S. Tolerates flooding in winter only.
- River bulrush (Scirpus fluviatilis). Common plant in freshwater marshes in northeastern U.S. Uncommon in southwest U.S.
- Rush (Juncus coriaceus). Uncommon plant in moist places in northern U.S.
- Sabatia (Sabatia stellaris). Uncommon in coastal brackish and salt marshes of eastern U.S.
- Saltmarsh bulrush (Scirpus maritimus). Uncommon plant in brackish and salt marshes in southeastern U.S.
- Saltmarsh bulrush (Scirpus robustus). Common plant brackish to salt marshes on U.S. Coasts.
- Saltmarsh spike rush (Eleocharis albida). Uncommon plant in coastal brackish marshes in eastern U.S. Tolerates some salinity.
- Saltwort (Batis maritima). Uncommon plant in coastal salt marshes in southeastern U.S. and California. Tolerates salinity.
- Saltwort (Salsola kali). Common spiny plant on sea beaches on east coast.
- Sand spike rush (Eleocharis montevidensis). Uncommon plant in wet sandy soils in eastern U.S.
- Saw grass (Cladium jamaicensis). Abundant emergent plant, in freshwater marshes in Florida. Uncommon to common in rest of southeast U.S.
- Schweinitz's cyperus (Cyperus schweinitzii). Common plant on sandy lake and stream banks in northeastern U.S.
- Sea lavender (<u>Limonium carolinianum</u>). Uncommon plant in coastal salt marshes in southeastern U.S.
- Sea lavender (Limonium nashii). Uncommon plant in coastal salt marshes in eastern U.S.
- Sea lavender (Limonium vulgare). Uncommon plant in coastal salt marshes in eastern U.S.
- Sea lettuce (<u>Ulva lactuca</u>). Common marine submergent washing onto dredged material beaches.
- Seaside arrowgrass (Triglochin maritima). Common fresh to brackish marsh plant in Pacific northwest.
- Sedge (Carex brevior). Uncommon plant in wet fields & meadows over entire U.S.
- Shining cyperus (Cyperus vivularis). Uncommon plant in wet soils in eastern U.S.
- Slender rush (Juncus tenius). Frequent plant in most soils in fields and lawns over entire U.S.

(Sheet 14 of 57)

- Slender-stemmed cyperus (Cyperus lupulinus). Uncommon plant in wet soils in eastern U.S.
- Slough sedge (Carex trichocarpa). Common in interior marshes and wet meadows in northern U.S.
- Smartweed (Polygonum argyrocoleon). Uncommon plant in wet soils in eastern U.S.
- Soft rush (Junaus effusus). Frequent to abundant freshwater marsh plant in southeastern U.S.
- Softstem bulrush (Scirpus validus). Common freshwater marsh plant over entire U.S.
- Southern arrowgrass (Triglochin striata). Uncommon freshwater marsh plant in southeast U.S.
- Southern bulrush (Scirpus californicus). Uncommon to common marsh plant over entire U.S.
- Southern smartweed (Polygonum densiflorum). Frequent plant in freshwater marshes in eastern U.S.
- Spike rush (Eleocharis calva). Uncommon plant in fresh and brackish marshes over entire U.S.
- Spike rush (Eleocharis halophila). Uncommon plant in fresh and brackish marshes over entire U.S.
- Straw-colored cyperus (Cyperus strigosus). Common plant in moist meadows, swamps, and along streams in eastern U.S.
- Straw sedge (Carex tenera). Uncommon in woods in northern U.S. and California.
- Toad rush (Juncus bufonis). Frequent plant in wet soils, old ponds, stream banks, and roadsides over entire U.S.
- Toothed cyperus (Cyperus dentatus). Uncommon plant in sandy swamps and on shores on east coast.
- Tule cattail (Typha domingensis). Uncommon emergent plant in freshwater marshes in southeastern U.S. and California.
- Water horehound (Lycopus americanus). Frequent in wet soils over entire U.S.
- Water horehound (Lycopus rubellus). Frequent in wet soils in eastern
- Water hyssop (Bacopa monnieri). Uncommon in coastal fresh and brackish marshes in southeastern U.S.
- Water smartweed (Polygonum amphibium). Common floating emergent plant in interior freshwater marshes over entire U.S.
- Water parsnip (Suim suave). Uncommon emergent plant in wet places and muddy banks over entire U.S.

(Sheet 15 of 57)

- Water pennywort (Hydrocotyle bonariensis). Common plant in sandy wet areas on eastern & gulf coasts. Tolerates salinity.
- Water plantain (Alisma plantago-aquatica). Common emergent plant in interior freshwater marshes over entire U.S.
- Water plantain (Alisma subcordatum). Uncommon emergent plant in freshwater marshes over entire U.S.
- Water primrose (Jussiaea repens). Abundant floating emergent plant in interior freshwater marshes in southeastern U.S.
- Water ptilimnium (Ptilimnium capillaceum). Uncommon plant in fresh and brackish marshes in eastern U.S.
- Water sedge (Carex emoryi). Uncommon emergent plant in swamps and along streams in northern and southwestern U.S.
- Water starwort (Callitriche fassettii). Uncommon floating submergent in freshwater streams and marshes in eastern U.S.
- Water starwort (Collitriche heterophylla). Common floating submergent in freshwater marshes and lakes in northern U.S.
- White-topped umbrella grass (Dichromena colorata). Uncommon plant in moist sandy soil in eastern U.S. Occurs in tropics.
- Widgeongrass (Ruppia maritima). Common in coastal fresh and brackish marshes over entire U.S. Cultivated as waterfowl food.
- Woody glasswort (Salicornia virginica). Frequent plant in coastal salt marshes over entire U.S.
- Wool grass (Scirpus cyperinus). Common plant in swamps and sandy soils in eastern U.S.
- Woolly sedge (Carex lanuginosa). Uncommon plant in swamps and wet meadows.
- Yellow cyperus (Cyperus iria). Uncommon introduced plant in waste places and swamps in eastern U.S.
- Yellow-fruited sedge (Carex annectans). Uncommon plant in fields in northeastern U.S.

HERBS

- Ageratum (Eupatorium coelestinum). Common stout herb in moist soil in eastern U. S.
- Air jam (Dioscorea bulbifera). Uncommon twining herb in moist thicket in deep south.
- Alsike clover (<u>Trifolium hybridum</u>). Common cultivated herb in pastures and fields in southeastern U. S.
- Alyssum (Alyssum alyssoides). Uncommon introduced herb in waste areas in northeastern U. S.

(Sheet 16 of 57)

- American brooklime (<u>Veronica</u> <u>americana</u>). Uncommon herb in swamps and streams in northern U. S.
- American nightshade (Solanum americanum). Common herb in waste areas in eastern U. S.
- American sea rocket (<u>Cakile edentula</u>). Common herb on sandy shores throughout entire U. S. Tolerates slight salinity.
- American snoutbean (Rhynchosia americana). Common twining herb in dry sandy soil in eastern u. S.
- Anemone (Anemone canadensis). Uncommon stout herb in wet areas in northern U. S.
- Annual saltmarsh aster (Aster sublatus). Uncommon herb on wet sandy shores, islands, and salt marshes on east and gulf coasts.
- Arrowleaf false mallow (Sida rhombifolia). Uncommon erect herb in wet areas in southeastern U. S.
- Asian dayflower (<u>Commelina</u> <u>communis</u>). Common introduced procumbent herb in moist soils in southeastern U. S.
- Aster (Aster ontarionsis). Uncommon erect herb in moist soils in northern U. S.
- Aster (Aster simplex). Uncommon herb in moist soils in eastern U. S.
- Aster (Aster <u>subulatis</u>). Common fleshy herb in salt marshes on east coast.
- Aster (Aster vinimeus). Common to frequent herb in moist soils in eastern U. S.
- Avens (Geum laciniatum). Common small herb in swamps and wet areas in northern U. S.
- Bay bean (<u>Canavalia maritima</u>). Uncommon herb in moist sandy soils in southeastern U. S.
- Beach evening primrose (Oenothera drummondii). Frequent herb sandy shores and islands in eastern U. S. Tolerates slight salinity.
- Beach ground cherry (<u>Physalis viscosa</u>). Uncommon small herb in wet sandy soils in eastern U. S.
- Beach heather (<u>Hudsonia tometosa</u>). Uncommon dense herb on sand shores and in pine barrens in eastern and across northern U. S.
- Beach orache (Atriplex arenaria). Common silvery bushy herb of sea beaches on east coast.
- Beach pea (Lathyrus japonicus). Common legume on sandy shores on east and gulf coasts.
- Beach sand spurry (Spergularia macrotheca). Common spring herb on wet sandy shores on east and gulf coasts.

(Sheet 17 of 57)

- Bedstraw (Galium palustre). Common trailing clinging herb in most soils in eastern U. S.
- Beggartick (Bidens frondosa). Common erect herb in moist soils in eastern U. S.
- Beggartick (Bidens pilosa). Uncommon herb in moist waste places in eastern U. S.
- Berlandier amaranth (Amaranthus berlandieri). Uncommon branching herb in moist soils in deep south soils.
- Bessey's gerardia (Gerardia tenuifolia). Uncommon slender herb in dry woods and thickets in northeastern U. S.
- Bird pepper (Capsicum annuum). Uncommon small herb in moist soils in deep south and Texas.
- Birdsfoot trefoil (Lotus cornicaulatus). Uncommon introduced procumbent herb in waste areas in northeastern U. S.
- Bitter cress (Cardimine pennsylvanica). Uncommon in swamps and wet areas in eastern U. S.
- Bitter sneezeweed (Helemium amarum). Common to abundant stout bitter herb in waste areas and pastures in southeastern U. S.
- Bittersweet (<u>Celastrus</u> <u>scandens</u>). Uncommon viny herb in rich soils in northern U. S.
- Black medic (Medicago lupulina). Frequent small herb in moist soils in eastern U. S.
- Black mustard (<u>Brassica nigra</u>). Common herb in wet soils in northern U. S.
- Black nightshade (Solanum nigrum). Uncommon small herb in moist soils in northern U.S.
- Bloodleaf (Iresine rhizomatosa). Uncommon erect herb in dry soils in eastern U.S.
- Blue curl (<u>Trichostema suffrutescens</u>). Uncommon branched herb in dry sandy areas along east coast.
- Blue flag (<u>Iris virginica</u>). Uncommon fleshy stout herb with showy flowers in moist sandy soils in eastern U.S.
- Blue pea (Clitoria ternalea). Uncommon introduced legume with showy flowers in Florida.
- Blue vervain (Verbena hastata). Common stiff erect herb in moist soils and waste areas throughout U.S.
- Bluntpod bundleflower (<u>Desmanthus obtusus</u>). Common herb in dry soils in southwestern U.S. & Texas.
- Bog-hemp (Boerhmeria cylindrica). Frequent rough herb in moist soils over eastern U.S. to Kansas.

(Sheet 18 of 57)

- Boneset (Eupatorium perfoliatum). Common erect herb in moist soils in northern U.S.
- Bouncing betty (Saponaria officinalis). Uncommon introduced herb with showy flower clusters in northern U.S.
- Brass button (Cotula coronopifolia).
- Bristleleaf dogweed (Dyssodia tenuiloba). Uncommon erect herb in moist soils and waste places in eastern U.S.
- Bristly crowfoot (Ranunculus pennsylvanicus). Uncommon erect branching herb in wet open areas in northern U. S.
- Broadpetal strawberry (Fragria virginiana). Common small herb in moist rich areas in eastern U.S.
- Brown-eyed susan (Rudbeckia hirta). Uncommon herb with showy flowers in dry soils in southern U.S.
- Buckthorn plantain (Plantago aristata). Abundant dark green herb in dry soils throughout entire U.S.
- Bull thistle (Carduus lanceolatus). Common spiny herb in moist soils throughout U.S.
- Bull thistle (Circsium vulgare). Common spiny herb in moist soils in eastern U.S.
- Bundleflower (<u>Desmanthus</u> <u>virgatus</u>). Common branching herb in dry soils in eastern U.S.
- Bur clover (Medicago polymorpha). Common introduced herb in waste places and meadows in eastern U.S.
- Bur cucumber (Sicyos angulatus). Uncommon viney herb in moist areas in eastern U.S. to Kansas.
- Butter and eggs (Linaria vulgaris). Common introduced herb in fields and waste areas over entire U.S. except far west.
- Buttercup (Ranunculus scelaratus). Common stout herb in swamps and wet ditches over entire U.S. Abundant along coasts.
- Caesar weed (Urena lobota).
- California figwort (Scrophularia californica). Uncommon strong-smelling herb in open woods and thickets in western U.S.
- Camphorweed (Heterotheca subaxillaris). Frequent herb in sandy coastal soils in eastern U.S.
- Camphor daisy (Machaeranthera phyllocephala). Common stout herb with showy flowers in dry soil in eastern U.S.
- Canada thistle (Cirsium arvense). Abundant spiny thistle in moist to wet soils throughout entire U.S.

- Canadian sand spurry (Spergularia canadensis). Common prostrate small herb in muddy soils in northern U. S.
- Candyflower (Montia sibirica). Uncommon dense herb in wet places in northern U. S. Prefers cold climates.
- Canela (Pluchea purpurascens). Uncommon purplish herb in swamps and wet areas in eastern U. S.
- Cardinal flower (Lobelia cardinalis). Common erect robust herb with showy flowers in moist to wet soils in eastern U. S.
- Carpetweed (Mollugo verticillata). Common prostrate herb in waste places and cultivated fields over entire U. S., especially southeastern U. S.
- Carolina geranium (Geranium carolinianum). Frequent low herb in sandy soils in southeastern U. S.
- Carolina mollow (Modiola caroliana). Common branched herb with showy flowers in low grounds in southeastern U. S.
- Carolina phyllanthus (<u>Phyllanthus carolinensis</u>). Uncommon wiry herb in sandy or gravelly soil in eastern U. S.
- Carolina wolfberry (Lycium carolinianum). Common introduced herb on thickets and waste areas in eastern U. S. to Kansas.
- Castor bean (<u>Ricinus</u> <u>communis</u>). Common erect herb in waste places in southeastern U. S. Cultivated as ornamental and medicinal plants.
- Catchfly (Silene cserei). Uncommon erect herb in dry soils in eastern U. S.
- Cathedral bells (Kalanchoe pinnata). Uncommon tropical fleshy herb in sandy soils in Florida.
- Catnip (Nepeta cataria). Common herb in moist soils in northern U. S.
- Chinese mustard (Brassica juncea). Common herb in moist soils in northern U. S.
- Chisme (Portulaca mundula). Uncommon prostrate herb in fields and waste areas in southern U. S.
- Clammyweed (<u>Polanisia dodecandra</u>). Uncommon branching herb in dry soils over entire U. S.
- Clammyweed (Polanisia graveolens). Common branching herb on sandy and gravelly shores over entire U. S.
- Clearweed (Pilea pumila). Common erect herb in shaded swamps and low areas in eastern U. S. to Kansas.
- Cleavers (Galium aparine). Common clinging herb in moist soils in eastern U. S., especially in north central states.
- Climbing hempweed (Mikania scandens). Uncommon twining herb in swamps and moist soils in eastern U. S.

(Sheet 20 of 57)

- Coast bedstraw (Galium hispidulum). Uncommon clinging herb in moist sandy soils in eastern U. S.
- Coast brookweed (Samolus ebractealus). Uncommon erect herb in swamps, brooks, and brackish marshes near coasts over entire U. S.
- Coast milkweed (Asclepias lanceolata). Common simple herb in swamps and coastal soils in eastern U. S.
- Coffee senna (Cassia occidentalis). Common branched erect herb in waste places in eastern U. S. Abundant in deep south.
- Cocklebur (Xanthium strumarium). Abundant shrubby herb in fields and waste areas in eastern U. S., especially southeast.
- Common burdock (Arctium minus). Common introduced small herb in waste places over entire U. S.
- Common chickweed (Stellaria media). Abundant small herb in fields and waste areas in eastern U. S., especially south.
- Common chicory (<u>Cichorium intybus</u>). Frequent branched herb in waste areas and fields throughout U. S.
- Common dandelion (<u>Taroxacum officinale</u>). Abundant small herb in lawns, pastures, and waste areas throughout entire U. S.
- Common frogfruit (Phylla modiflora). Common erect herb in low wet areas in Texas.
- Common milkweed (Ascelepias syriaca). Frequent erect herb in moist soils in eastern U. S., especially northern U. S.
- Common motherwort (Leonurus cardiaca).
- Common mullein (Verbascum thapsum). Abundant erect stout herb in fields and waste areas over northern U. S.
- Common pigweed (Amaranthus hybridus). Frequent bushy herb in moist rich soils in eastern U. S.
- Common plantain (Plantago major). Abundant low herb in moist soils in waste areas and lawns throughout entire U. S.
- Common ragweed (Ambrosia artemisiifolia). Abundant erect herb in moist sandy soils throughout entire U. S.
- Common sowthistle (Sonchus oleraceus). Abundant introduced leafy herb in fields and waste places over entire U. S.
- Common sunflower (<u>Helianthus annuus</u>). Common erect herb in moist soils throughout entire U. S.
- Common tansy (<u>Tanacetum vulgare</u>). Frequent herb in moist soils eastern U.S.
- Common vetch (<u>Vicia sativa</u>). Common legume in waste places and cultivated for forage and soil conservation over entire U. S.

(Sheet 21 of 57)

- Common wintercress (Barbarea vulgaris). Common branching leafy herb in waste areas over entire U. S.
- Common wormwood (Artemisia absinthium). Frequent shrubby herb in waste areas over entire U. S.
- Coral bean (Erythrina herbacea). Uncommon branched herb in upland soils in southeastern U. S.
- Coreopsis (Coreopsis lanceolata). Common erect herb with showy flowers in most soils in northeastern U. S. to Michigan.
- Corn salad (Valerianella stenocarpa). Uncommon erect herb in prairies and woodlands in central U. S.
- Corpus Christi fleabane (Erigeron myrionactus). Uncommon herb with showy flowers in moist soils in Texas.
- Cow cress (Lepidium campestre). Common herb in waste areas and fields over northern U. S. to Virginia.
- Cow parsnip (Heracleum lanatum). Common very stout herb in moist soils throughout entire U.S. except deep south.
- Cow pea (Vigna luteola). Frequent cultivated legume in most soils in southeastern U. S.
- Crab's eye (Abrus precatorius).
- Creeping buttercup (Ranunculus repens). Common prostrate herb in moist sandy soils of eastern U. S.
- Creeping charlie (Glecoma hederacea). Common leafy herb in waste areas, woods, and thickets over entire U. S. except deep south.
- Creeping cucumber (Melothria pendula). Uncommon viney herb in thickets in eastern U. S.
- Croton ($\underbrace{\text{Croton punctatus}}_{\text{U. S.}}$). Uncommon branched herb in dry soil in eastern
- Crow poison (Northoscordum bivalve). Uncommon bulbous herb in sandy soils in eastern U. S. to Nebraska.
- Cudweed (Gnaphalium falcatum). Uncommon pubescent herb in dry soils in eastern U. S.
- Cudweed (Gnaphalium pensilvanicum). Uncommon herb in dry open areas in eastern U. S.
- Curly dock (Rumex crispus). Frequent erect stout herb in moist soils in eastern U. S.
- Cut-leaved evening primrose (Oenothera laciniata). Common procumbent herb in sandy dry soils in eastern U. S.
- Dahlbergia (Dahbergia ecastoyshyllum).

(Sheet 22 of 57)

- Daisy fleabane (Erigeron annuus). Abundant erect herb with showy flower clusters in fields over eastern U. S. to Missouri.
- Daisy fleabane (Erigeron quercifolius). Uncommon erect herb in fields and waste areas over eastern U. S.
- Daisy fleabane (Erigeron strigosus). Common erect herb in fields over entire U. S.
- Dalea ($\underline{\text{Dalea}}$ emarginata). Uncommon shrubby herb on prairies in central U. S.
- Dayflower (Commelina diffusa). Uncommon herb in moist areas in eastern U. S.
- Dayflower (<u>Commelina erecta</u>). Uncommon herb in marshes and low areas in southeastern U. S.
- Daylily (Hemerocallis fulva). Uncommon herb with showy flowers in most soils in eastern U. S. Common in cultivation.
- Deer pea vetch (<u>Vicia ludoviciana</u>). Common legume in moist soils from Texas to Florida.
- Desert Christmas cactus (Opuntia leptocaulis). Uncommon fleshy herb in dry sandy soils in Texas and southwest U. S.
- Ditch stonecrop (Penthorum sediodes). Uncommon erect branched herb in ditches and swamps in eastern U. S. to Kansas.
- Dog fennel (Eupatorium capillifolium). Abundant erect fine-leaved herb in fields and wasteplaces on southeastern U. S.
- Dog fennel (Eupatorium compositifolium). Common erect fine-leaved herb in waste areas in Florida.
- Douglas's aster (Aster subspicatus). Uncommon erect herb in dry soils in northeastern U.S.
- Downy ground cherry (Physalis <u>pubescens</u>). Uncommon low herb in sandy soil in eastern U. S.
- Drummond skullcap (Scutellaria drummondii). Uncommon hirsute herb in dry shady soils in Texas.
- Dwarf dalea (Dalea nana). Uncommon shrubby herb in dry soils in central U.S.
- East coast prickly pear cactus (Opuntia compressa). Uncommon fleshy herb in dry sandy soils along east coast.
- Ebony spleenwort (Asplenium platyneuron). Uncommon creeping plant on banks in alkaline soils in eastern U.S.
- Elephant's foot (<u>Elephantopus coelestimum</u>). Uncommon erect herb in dry woods in eastern U.S.
- Elephant's foot (Elephantopus <u>nudatus</u>). Uncommon erect stout herb in sandy woods in southeastern U.S.

(Sheet 23 of 57)

- English plantain (Plantago lanceolata). Common introduced herb in fields and waste areas in eastern U.S.
- European bassia (Bassia hirsuta). Uncommon introduced pubsecent herb in waste areas in Massachusetts and New Jersey.
- European sea rocket (Cakile maritima). Common herb on sea beaches on east and west coasts. Tolerates some salinity.
- Evening primrose (Oenothera biennis). Frequent erect stout herb in dry soils in eastern U.S. to Minnesota.
- Evening primrose (Oenothera fruticosa). Uncommon erect herb in dry soil in eastern U.S.
- Evening primrose (Oenothera parviflora). Uncommon erect herb in dry soil in northern U.S.
- False dandelion (Agoseris heterophylla). Uncommon tufted herb in dry soils in eastern U.S.
- False dandelion (Pyrrhopappus carolinianus). Uncommon leafy herb in dry fields in southeastern U.S.
- False dragonhead (Physostegia formosior). Uncommon erect herb in moist soils in northern U.S.
- False indigo (Amorpha fruticosa). Common shrubby herb along streams in eastern U.S.
- False loosestrife (Ludwigia palustris). Frequent procumbent herb in muddy ditches and swamps in eastern U.S. and California.
- False mallow (Sida acuta). Uncommon erect herb in dry soils in eastern U.S.
- False mallow (Sida ciliaris). Uncommon erect herb in dry soils in eastern U.S.
- False pennywort (Dichondra carolinensis). Common low creeping herb in sandy soils in southeastern U.S.
- False pimpernel (Lindernia dubia). Uncommon shrubby herb in swamps and wet soils in eastern U.S.
- False Solomon's seal (Smilacina racemosa). Uncommon leafy herb in moist shaded woods and thickets in northeastern U.S. to Georgia.
- False Solomon's seal (Smilacina stellata). Uncommon leafy herb in moist soil in eastern U.S. including parts of deep south.
- Fascicled agalinis (Agalinis fasciculata). Uncommon fine-leaved herb in marshes in southeastern U.S.
- Fiddle dock (Rumex pulcher). Common erect branched herb in waste places in southeastern U.S.
- Field daisy (Crysanthemum leucanthemum). Uncommon branched herb with showy flowers in dry soils in northeastern U.S.

(Sheet 24 of 57)

- Field mint (Mentha arvensis). Common fragrant herb in moist soils in eastern U.S.
- Field pennycress (Thlaspi arvense). Common introduced erect herb in waste areas in northeastern U.S.
- Field sowthistle (Sonchus arvensis). Common leafy herb in fields and waste areas in eastern U.S.
- Figwort (Scrophularia marilandica). Uncommon smelly herb in dry soils in eastern U.S.
- Fireweed (Erechtites hieracifolia). Frequent erect herb in sandy soils in eastern U.S., including sea beaches.
- Five-finger cinquefoil (Potentilla norvegica). Common, erect, stout herb in dry soil over entire U.S.
- Flax (Linum alatum). Uncommon slender herb in waste places and fields over entire U.S.
- Fleabane (Erigeron philadelpicus). Uncommon slender herb in fields and woods throughout U.S.
- Florida bloodleaf (<u>Iresine celosia</u>). Uncommon herb in sandy soils in Florida.
- Florida bluehearts (<u>Buchnera floridana</u>). Uncommon rough hirsute herb in sandy soils in Florida.
- Florida flaveria (Flaveria floridana). Uncommon erect herb in sandy soils in Florida and deep south.
- Florida pellitory (Parietaria floridana). Uncommon simple herb in dry sandy soils in Florida and deep south.
- Florida prickly pear cactus (Opuntia stricta). Uncommon fleshy herb in dry sandy soils in Florida.
- Flowering straws (Lygodesmia aphylla). Uncommon branched stiff herb in dry soils in northcentral U.S.
- Forget-me-not (Myosotis laxa). Common small herb in brooks and wet muddy areas in eastern U.S. to Tennessee.
- Four o'clock (Mirabilis nyctaginea). Common cultivated herb in lawns and flower gardens in dry soils over entire U.S.
- Foxglove (Digitalis purpurea). Frequent introduced stout erect herb in dry soils in northeastern U.S.
- Fringed loosestrife (Lysimachia ciliata). Common erect herb in moist thickets over entire U.S.
- Froelichia (Froelichia floridana). Common erect hairy herb in dry soils in southeastern U.S.
- Frogfuit (Lippia lanceolata). Common erect branched herb in wet areas in southeastern U.S.

(Sheet 25 of 57)

- Frost aster (Aster pilosus). Uncommon herb in dry soils in eastern U. S.
- Galactia (Galactia macreei). Common prostrate herb in dry sandy soils in southeastern U.S.
- Galinsoga (Galinsoga ciliata). Common introduced branching herb in waste areas throughout U.S.
- Garden asparagus (Asparagus officinalis). Common cultivated herb in dry to moist soils throughout U.S.
- Gaura (Gaura angustifolia). Uncommon erect branched herb in dry soil in eastern U.S.
- Germander (Teucium canadense). Common erect simple herb in moist thickets and marshes in eastern U.S.
- Giant chickweed (Myosoton aquaticum). Uncommon herb in moist to wet soils in eastern U.S.
- Giant goldenrod (Solidago gigantea). Common erect branched herb with showy flowers in dry soils in eastern U.S. to plains states.
- Giant ragweed (Ambrosia trifida). Common in all moist waste areas.
- Giant vetch (Vicia gigantea). Uncommon cultivated legume in most soils over entire U.S.
- Glandular croton (Croton glandulosus). Common silvery branched herb in dry soils in southern U.S.
- Globe berry (Ibervillea tripartita).
- Goat's beard (<u>Tragopogon dubius</u>). Common introduced branched erect herb in fields and waste areas over northern U.S.
- Goat's beard (Tragopogon major). Common introduced erect herb in fields and waste areas over northern U.S.
- Golden ragwort (Senecio glabellus). Uncommon wooly herb in swamps and wet places over southern U.S.
- Goldenrod (Solidago racemosa). Uncommon erect simple herb on river banks in northeastern U.S.
- Goldenrod (Solidago rugosa). Abundant hirsute erect herb in dry soils in eastern U.S.
- Goldenrod (Solidago tenuifolia). Uncommon erect herb in dry sandy soil in eastern U.S.
- Gorse (<u>Ulex europaeus</u>). Uncommon introduced spiny branched herb in waste areas in northeastern U.S.
- Gray nicker bean (Caesalpinia crista). Uncommon branched herb in dry soils in Texas and plains areas.

(Sheet 26 of 57)

- Great lobelia (Loblia syphelitica). Frequent stout leafy herb in moist soils in eastern U.S.
- Great willow-herb (Epilobium angustifolium). Common erect stout herb in dry soils over northern U.S.
- Green dragon (Arisaema dracontium). Uncommon herb in moist shaded woods in eastern U.S.
- Green pigweed (Amaranthus retroflexus). Common stout erect herb in waste areas throughout U.S.
- Green-thread (Thelesperma filifolium). Uncommon branched herb in dry soils in central and southwestern U.S.
- Groundnut (Apios americana). Common climbing herb in moist soils in eastern U.S. to Kansas.
- Hairy flowered spiderwort (<u>Trandescantia hirsutiflora</u>). Uncommon procumbent herb in moist soils in eastern U.S.
- Hammerwort (Parietaria pensylvanica). Common reclining herb on dry banks in northeastern U.S.
- Harebell (Componula rotundifolia). Common herb with showy flowers in moist meadows over northern U.S. and California.
- Hawksbeard (Crepsis capillaris). Common whorled-leaf herb in fields and waste areas in northeastern U.S.
- Heartleaf nettle (Urtica chamaedryoides). Common stinging herb in thickets and open woods in eastern U.S.
- Hedge hyssop (Gratiola neglecta). Uncommon erect herb in wet areas in eastern U.S.
- Heliotrope (Heliotropium angiospermum). Uncommon branched herb in wet sandy soils and waste areas in eastern U.S.
- Heliotrope (Heliotropium polyphyllum). Uncommon branched herb in waste areas in eastern U.S.
- Hemlock parsley (Conioselimum pacificum). Uncommon leafy herb in swamps and wet areas in Pacific northwest.
- Herb-robert (Geranium robertianum). Common low branching herb in moist areas in northern U.S.
- Hoary alyssum (Berteroa incana). Common erect branched herb in waste areas in northern U.S.
- Honewort (Cryptotaenia canadensis). Uncommon erect branching herb in woods in central U.S.
- Hooker's evening primrose (Oenothera hookeri). Uncommon herb in dry soils in western U.S.
- Horsecrippler cactus (Echinocactus texansis). Common fleshy herb in dry sandy soils in Texas and southwest U.S.

- Horsemint (Monarda punctata). Common pubescent branched herb in dry fields in eastern U.S. to Kansas.
- Horse nettle (Solanum carolinese). Frequent small branched herb in waste areas and moist soils in eastern U.S.
- Horseweed (Conyza candensis). Frequent erect herb in dry sandy soils on east & gulf coasts. Tolerates slight salinity.
- Horseweed fleabone (Erigeron canadensis). Frequent branched herb in fields and waste areas throughout U.S.
- Illinois bundleflower (Desmanthus illinoensis). Uncommon branched shrub in fields and dry soils in northern U.S.
- Indian basket (Gaillardia pulchella). Common branched herb with showy flowers in dry sandy soils on east and gulf coasts. Tolerates slight salinity.
- Indian hemp (Apocynum cannabinum). Uncommon in moist sandy soils in northeastern U.S.
- Ironweed (Veronia altissima). Common procumbent herb in brooks and swamps over entire U.S.
- Joe-pye-weed (Eupatorium maculatum). Abundant stout erect herb in moist soils in southeastern U.S.
- Jointweed (Polygonella articulata). Common wiry herb on sandy coastal and Great Lakes shores in eastern U. S.
- June bean (Canavalia maritima). Uncommon herb in moist sandy soils on east and west coasts.
- Karnes sensitivebriar (Schrankia lalidens). Uncommon branched herb in dry soils in southeastern U.S.
- Kidder daisy (Aphanostephus kidderi). Uncommon erect branched herbs in dry soils in central and southern U.S.
- Kidneyleaf buttercup (Ranunculus abortivus). Common branched herb in woods and moist soils in eastern U.S.
- Kitchen sorrel (Rumex acetosa). Frequent introduced erect leafy herb in waste areas in northeastern U.S.
- Knotweed leafflower (Phyllanthus polygonoides). Uncommon slender erect herb in sandy soil in eastern U.S.
- Ladies' tresses (Spilanthes americana). Frequent branched herb in wet soils in eastern U.S.
- Lady's sorrel (Oxalis europaea). Common introduced low branching herb in woods, fields, and waste areas in eastern U.S.
- Lambsquarters (Chenopodium album). Abundant branched erect herb in fields and waste areas throughout U.S.

(Sheet 28 of 57)

- Lance-leafed loosestrife (Lysimachia hybrida). Uncommon erect branched herb in waste areas, fields, and thickets in eastern U.S.
- Late flowering thoroughwort (Eupatorium serotinum). Common branched herb in moist soils in eastern U.S. to Kansas.
- Lazy daisy (Aphanostephus skirrhobosis). Uncommon erect branched nerb in dry soils in southwestern U. S. and Texas.
- Lead plant (Amorpha herbacea). Common bushy herb in dry soils in central and southwestern U. S.
- Leafy-bracted beggartick (Bidens comosa). Common erect branched herb in wet soils.
- Leavenworth vetch (Vicia leavenworthii). Uncommon cultivated legume in most soils in southeastern U. S.
- Lesser ladies' tresses (Spilanthes ovalis). Common branching herb in wet soils in eastern U. S.
- Liverleaf (<u>Hepatica</u> <u>acutiloba</u>). Uncommon leafy herb in woods in northeastern U. S. to Minnesota.
- Loosestrife (Lythrum alatum). Common erect herb in moist areas in northeastern U. S.
- Loosestrife (Lythrum lanceolatum). Common erect herb in moist areas in southeastern U. S.
- Low poppymallow (<u>Callirhoe involucrata</u>). Uncommon leafy herb with showy flowers in dry soil in central U. S.
- Madacascar periwinkle (Catharanthus roseus).
- Mad-dog skullcap (Scutellaria lateriflora). Common erect leafy herb in wet places in eastern U. S.
- Mallow (Malvoviscus arboreus). Uncommon shrubby herb with showy flowers in waste areas in eastern U. S.
- Manzella coreopsis (Coreopsis cardaminaefolia). Uncommon branched herb in moist soils in southern U. S.
- Maritime pinweed (Lechea maritima). Uncommon tufted stout herb on sandy sea-shores in eastern U. S.
- Marsh bedstraw (Galvin obtusum) Common clinging herb in wet soils in eastern U. S.
- Marsh cleavers (Galvim tinctorium). Common clinging herb in wet soils in northeastern U. S.
- Marsh fleabane (Pluchea camphorota). Frequent branched herb in salt marshes on east and gulf coasts. Tolerates some salinity.

(Sheet 29 of 57)

- Marsh marigold (Caltha biflora). Uncommon stout herb in swamps and meadows in northeastern U.S.
- Marsh monkey flower (Mimulus guttatus). Uncommon stout simple herb in wet meadows in California, New York, and Connecticut.
- Marsh skullcap (Scutellaria galericulata). Uncommon erect leafy herb in wet soils in eastern U.S.
- Marsh vetchling (Lathyrus palustris). Common twining legume in wet soils in eastern U.S.
- Masterwort (Heracleum maximum). Common stout herb in moist soil in northeastern U.S.
- Mat bluets (Hedyotis humifusa). Uncommon branched erect herb in wet open areas in eastern U.S.
- Mayweed (Antheneis cotula). Common smelly branched herb in fields and waste areas over entire U.S.
- Meadow goldenrod (Solidago canadensis). Frequent erect herb in meadows and fields over entire U.S.
- Mexican tea (Chenopodium ambrosoides). Common branched herb in waste places over entire U.S.
- Milk purslane (Euphorbia supina). Uncommon erect slender herb in dry soil in eastern U.S.
- Milk vetch (Astragulus canadensis). Uncommon branched herb along streams in northern U.S.
- Milkweed (Asclepias oenotheroides). Uncommon simple herb in moist soils in northern U.S.
- Mock pennyroyal (Hedeoma hispida). Common erect branched herb in dry plains in central U.S.
- Monkey ear (Mimulus ringens). Common erect 4-sided herb in swamps and along streams in northern U.S.
- Mouse ear (Cerastium brachypodium). Common tufted herb in dry soil in central U.S.
- Mouse-ear chickweed (Cerastium vulgatum). Common introduced tufted herb in fields and woods over entire U.S.
- Musk thistle (Carduus nutans). Common spiny branched introduced herb in waste areas in northeastern U.S.
- Naked prairie-coneflower (Ratibida peduncularis). Common rough branched herb in dry prairies in central U.S.
- Neptunia (Neptunia lutea).
- New England aster (Aster novae-angliae). Common stout erect leafy herb with showy flowers in fields and swamps in northern U.S.

(Sheet 30 of 57)

- Night-flowering catchfly (Silene noctiflora). Common stout erect herb in waste areas in northern U.S.
- Nightshade (Solanum dulcamara). Common low herb in marshy areas in eastern U.S.
- Nightshade (Solanum gracile). Uncommon low herb in moist soils in eastern U.S.
- Nipplehead cactus (Mammillaria guncmifera). Common fleshy herb in dry sandy soils in Texas and southeast.
- Nodding beggartick (Bidens arnua). Common erect branched herb in moist soils in eastern U.S.
- Nodding bluets (<u>Hedyotis subviscosa</u>). Common branched erect herb in wet open areas in eastern U.S.
- Northern bedstraw (Galium boreale). Common clinging herb in moist areas in northern U.S.
- Northern dune tansy (<u>Tanacetum douglasii</u>). Uncommon stout herb with showy flowers in moist soil in northern U.S.
- Northern silene (Stellaria calycantha). Uncommon procumbent herb in wet waste areas in northern U.S.
- Nuttall (Trepocarpus arethusae).
- Old-man-in-the-spring (Senecio vulvaris). Common branched herb in waste areas and cultivated soils in northern U.S.
- Orange hawkweed (<u>Hieracium aurantiacum</u>). Common hirsute tufted herb in fields, woods, and roadsides in northeastern U.S.
- Ox-eye (Heliopsis helianthoides). Common branched herb with showy flowers in open areas in northern U.S. and Florida.
- Pacific marsh cinquefoil (Potentilla pacifica). Common branched procumbent herb in sandy soil on Pacific coast.
- Pacific water parsley (<u>Denanthe sarmentosa</u>). Uncommon slender herb in wet areas and swamps in western U.S.
- Paintbrush owl-clover (Orthocarpus castillyoides). Uncommon erect herb in dry soils in western U.S.
- Pale goosefoot (Chenopodium albescens). Uncommon branched dense herb in dry soils and waste areas in eastern U.S.
- Palmer amaranth (Amarathus palmeri). Uncommon erect branched herb in dry soils in southwestern U.S. and northeastern U.S.
- Parsnip (Pastinaca sativa). Common leafy branching herb in waste areas in eastern U.S.
- Partridge pea (Cassia fasciculata). Frequent branched legume with showy flowers in dry soils in southeastern U.S. Cultivated for wildfowl food

(Sheet 31 of 57)

- Passion flower (Passiflora lutea). Uncommon viney herb in thickets and dry soils in southeastern U.S.
- Patience dock (Rumex patientia). Common simple erect herb in waste areas in northern U.S.
- Pea (Daubentonia punicea).
- Pearly everlasting (Anaphalis margaritacea). Uncommon woolly whitish herb in dry soils in northern U.S.
- Pellitory (Parietaria praetermissa). Uncommon slender herb in dry soils in northern U.S.
- Pencil flower (Stylosanthes viscosa). Uncommon wiry branched herb in dry soils in eastern U.S.
- Peppergrass (Lepidium densiflorum). Common introduced basal-leaved herb in dry soils in northern U.S.
- Pickpocket (Capsilla bursa-pastoris). Frequent introduced basal-leaved herb in waste areas and fields over northern U.S.
- Pineapple weed (Matricaria matricarioides). Common leafy herb in waste areas over entire U.S.
- Pink purslane (Portulaca pilosa). Uncommon hirsute spreading herb in dry soils in southeastern U.S.
- Pinweed (Stipulicida setacea). Frequent tufted, branching herb in waste areas over entire U.S.
- Plains coreopsis (Coreopsis tinctoria). Frequent branched herb with showy flowers in moist soils in central U.S.
- Plains gaura (Gaura brachycarpa). Common erect branched herb in dry soils in central U.S.
- Plantain (Plantago hybrida). Common small herb in dry soils in eastern U.S.
- Plantain (Plantago rugellii). Common small herb in fields, woods, and waste areas in northern and southcentral U.S.
- Pokeberry (Phytolacca americana). Common red branched herb in waste areas and dry soils in eastern U.S.
- Poor joe (Diodia teres). Uncommon rigid rough branched herb in dry sandy soil over entire U.S. except far west.
- Popinac (Leucaena leucocephala).
- Prairie agalinis (Aalinis heterophylla). Common small branched herb in wet woods and on prairies in southcentral U.S.
- Prairie bluets (Hedyotis nigricans). Common very small herb in dry soil in central U.S.

(Sheet 32 of 57)

- Prairie parsley (Polytaenia nuttallii). Uncommon leafy herb in dry soils in central U.S.
- Prickly false mallow (Sida spinosa). Common spiny erect branched herb in waste areas in eastern U.S. to Texas.
- Prickly pear cactus (Opuntia humifusa). Common fleshy herb in dry sandy soils and along coasts and islands in southern U.S.
- Prickly sowthistle (Sonchus asper). Common erect leafy herb in waste areas over entire U.S.
- Prostrate starwort (Stellaria prostrata). Uncommon prostrate weak herb in fields and moist areas in eastern U.S.
- Purple agalinis (Aglinis purpurea). Common branched slender herb in moist fields and meadows in eastern U.S. to Missouri.
- Purple cudweed (Gnaphalium purpureum). Uncommon rough erect herb in dry sandy soils in eastern U.S. to Kansas.
- Purslane (Portulaca oleracea). Common prostrate branching herb in fields and waste areas over entire U.S.
- Purslane speedwell (Veronica peregrina). Common branched herb in moist areas and cultivated fields over entire U.S.
- Queen Anne's lace (<u>Daucus carota</u>). Frequent branched herb with showy flowers in fields and waste areas over entire U.S.
- Rabbitfoot clover (Trifolium arvense). Common branched herb in fields and waste areas in eastern U.S. to Missouri.
- Rabbit tobacco (Gnaphalium obtusifolium). Common erect branched herb in dry open areas in eastern U.S. to Kansas.
- Ragwort (Senecio imparipinnatus). Uncommon branched herb in waste areas in eastern U.S.
- Rattlebean (Sesbania drummondii). Uncommon branched legume in moist soils in southeastern U.S.
- Rattlebox (Crotalaria mucronata). Uncommon branched legume in dry open areas in southeastern U.S.
- Red clover (Trifolium pratense). Frequent branched herb with showy flowers in fields and waste areas in eastern and northern U.S.
- Red seeded plantain (Plantago rhodosperma). Uncommon small herb in waste areas in eastern U.S.
- Red spiderling (Boerhaavia coccinea).
- Resinweed (Grindela integrifolia). Uncommon branched erect herb with showy flowers in dry soils in eastern U.S. to Texas.
- Retama (Parkinsonia aculeata).

(Sheet 33 of 57)

Prairie bicace (Redworls pierteant).

- Rhombic evening primrose (Oenothera rhombipetala). Uncommon erect herb in dry soils and on prairies in central U.S.
- Richardia (Richardia brasiliensis).
- Ridgeseed spurge (Euphorbia glyptosperma). Common branched prostrate herb in sandy soils in eastern U.S. to Texas.
- Rio Grande phlox (Phlox glabriflora). Uncommon erect herb with showy flowers in sandy soils in Texas.
- Rose pink (Sabatia campestris). Common branched 4-angled herb on prairies and in dry soils in central U.S.
- Rouge plant (Rivina humilis). Uncommon herb in sandy soils in Florida.
- Rough avens (Geum virginianum). Common branched stout low herb in moist soils in northern U.S.
- Rough hedge nettle (Stachys hispida). Common erect rough hirsute herb in moist soil in eastern U.S. to Minnesota.
- Round copperleaf (Acalypha radians). Uncommon copper-colored herb in dry woods and thickets in eastern U.S.
- Roundleaf scuefpea (Psoralea rhombifolia). Uncommon branched herb in dry soils in central U.S.
- Sabatia (Sabatia stellaris). Common branched herb in salt meadows and sea beaches on east coast.
- Saltmarsh aster (Aster tenuifolius). Common branched herb in brackish and salt marshes on east and gulf coasts.
- Saltmarsh loosestrife (Lythrum lineare). Common branched slender herb in brackish and salt marshes on east and gulf coasts.
- Saltmarsh mallow (Kostelalzkya virginica). Uncommon erect branching herb with showy flowers in brackish and salt marshes on east and gulf coasts.
- Saltmarsh sand spurry (Spergularia marina). Common spiny herb in brackish and salt marshes and sandy shores on east and gulf coasts.
- Saltweed (Philoxerus vermicularis). Uncommon branched herb in brackish and salt sandy soils on east coast.
- Sandmat (Cardionema racesissima). Uncommon herb in coastal sandy soils in Pacific northwest.
- Sand rose-gentian (Sabatia arenicola). Uncommon branched herb in sandy soils in eastern U.S.
- Sand spurry (Spergularia platensis). Uncommon prostrate branched herb in sandy soils in eastern U.S.
- Sand spurry (Spergularia echinosperma). Uncommon branched herb in moist sandy soils in eastern U.S.

(Sheet 34 of 57)

- Scarlet pea (Indigofera minata). Uncommon branched legume in sandy soils in southeastern U.S.
- Scarlet pimpernel (Anagallis arvensis). Common branched herb in waste areas over entire U.S.
- Scrambled eggs (Corydalis micrantha). Uncommon slender branched herb in woods in southern and central U.S.
- Seabeach purslane (Arenaria peploides). Common fleshy stout herb in seashore sands on east coast.
- Seabeach sandwort (Honkenya peploides). Common fleshy herb on sea beaches on east and gulf coasts.
- Sea blite (Suaeda linearis). Common on east & Gulf coast islands and beaches. Salt tolerent.
- Sea blite (Suaeda maritima). Common on east and gulf coast islands and beaches. Salt tolerent.
- Sea ox-eye (Borrichia frutescens). Common on coastal islands and beaches on east and gulf coasts. Salt tolerent.
- Sea plantain (Plantago maritima). Common small herb in sandy soils in Pacific northwest.
- Sea purslane (Sesuvium maritimum). Common branched herb on sandy beaches on east and gulf coasts.
- Sea purslane (Sesuvium portulacastrum). Common herb on sandy beaches on east and gulf coasts.
- Sea rocket (<u>Cakile fusiformis</u>). Common fleshy branched herb on sandy shores in eastern U.S.
- Sea rocket (Cakile harperi). Uncommon fleshy branched herb on sandy shores in eastern U.S.
- Seashore lupine (Lupinus littoralis). Common erect branched herb on sandy shores in the Pacific northwest.
- Seaside agalinis (Agalinis maritima). Common fleshy erect branched herb in salt marshes on east coast.
- Seaside evening primrose (Oenothera humifusa). Common branching herb with showy flowers on sand dunes and beaches on east and gulf coasts.
- Seaside geradia (Gerardia maritima). Common erect fleshy herb in salt marshes and meadows on east coast.
- Seaside heliotrope (Heliotropium curassavicum). Common fleshy branched herb in sandy seashores on east and gulf coasts.
- Seaside mahoe (Thespesia populnea).

(Sheet 35 of 57)

- Seaside goldenrod (Solidago sempervirens). Frequent, erect, stout herb in sandy soils on east and gulf coasts.
- Sea-watch (Angelica lucida). Uncommon erect branching herb in swamps and moist areas in Pacific northwest.
- Sensitivebriar (Schrankia microphylla). Common large branching prostrate herb in dry soils in southern U.S.
- Sensitivebriar (Seobania exaltata). Uncommon branching herb with showy flowers in fields and waste areas in eastern U.S.
- Shade betony (Stachys crenata). Uncommon erect slender herb in moist thickets and woods in western U.S.
- Sheep sorrel (Rumex acetosella). Common erect leafy herb in waste areas over entire U.S.
- Shore orache (Atriplex patula). Common branched shrubby herb on sandy shores on east and gulf coasts.
- Showy false mallow (Sida lindheimeri). Uncommon erect branched herb with showy flowers in dry soils in southern U.S.
- Showy primrose (Oenothera speciosa). Uncommon branching herb with showy flowers in sandy soils in eastern U.S.
- Silver bursage (Ambrosia chamissonis). Uncommon erect branched herb in dry waste areas in Pacific northwest.
- Silvery cinquefoil (Potentilla argentea). Uncommon branched tufted herb in dry soils in northcentral U.S.
- Silverleaf sunflower (Helianthus argophyllus). Uncommon erect herb with showy flowers in prairies and fields in southern U.S.
- Silverweed (Potentilla anserina). Common tufted whitish herb on shores and in salt marshes on east and west coasts.
- Skullcap (Scutelloria epilobiifolia). Uncommon erect branched herb in open woods in eastern U.S.
- Skullcap (Scutellaria muriculata). Uncommon erect branched herb in waste areas and woods in eastern U.S.
- Skunk cabbage (<u>Lysichitum</u> <u>americanum</u>). Frequent herb in moist soils in Pacific northwest.
- Sleepy catchfly (Silene antirrhina). Common erect slender herb in waste places and woods in eastern U.S.
- Slender amaranth (Amaranthus viridus). Uncommon erect leafy herb in waste areas in eastern U.S.
- Slender goldenweed (Croptilon divaricatum). Uncommon herb in waste areas in eastern U.S.
- Slimlobe celery (Apium leptophyllm). Uncommon slender herb in waste areas in southern U.S.

(Sheet 36 of 57)

- Slimpod milk vetch (Astragalus leptocarpus). Uncommon slender erect herb in dry soils in central U.S.
- Small bedstraw (Galium trifidum). Uncommon clinging herb in moist soils in Pacific northwest.
- Small coast germander (Teucrium cubense). Uncommon erect branched herb in moist soils near coast in eastern U.S.
- Small fleabane (Erigeron pasillus). Uncommon branched herb in fields and moist soils in eastern U.S.
- Smooth hedge nettle (Stachys tenuifolia). Uncommon smooth erect branched herb in moist fields and thickets in eastern U.S.
- Snakeroot (Sanicula canadensis). Uncommon branched herb in dry soils in eastern U.S.
- Snakeroot (Sanicula marilandica). Uncommon branched erect herb in woods and dry soils in southeastern U.S.
- Snapdragon vine (Maurandya antirrhiniflora).
- Sneezeweed (<u>Helanium autumnale</u>). Common branched herb with showy flowers in swamps, woods, and wet meadows in eastern U.S. Also ""ed swamp sunflower.
- Snoutbean (Phynchosia minima). Uncommon erect stout herb in dry woods soils in southeastern U.S. to Texas.
- Soft aster (Heterotheca pilosa). Uncommon erect hirsute herb in dry soil in eastern U.S.
- Solomon's seal (Polygonatum canaliculatum). Common herb in moist woods and along streams in eastern U.S.
- Sorrel (Rumex hastatulus). Uncommon woody herb on east coast and in dry soils in central U.S.
- Southern peppergrass (Lepidium austrinum). Common basal-leaved herb in dry soils in southeastern U.S.
- Southern ragweed (Ambrosia bidentata). Common branched leaf herb on prairies in southern U.S.
- Soybean (Glycine max). Abundant cultivated legume in most soils over entire U.S.
- Spatulate-leaved frogfruit (Lippia nodiflora). Common branched herb in moist soils in southern U.S.
- Spanish moss (<u>Tillandsia usneoides</u>). Common parasitic herb growing from mature trees in deep south, especially near gulf coast.
- Spider lily (Hymenocallis latifolia). Common cultivated bulbous herb in dry soils in southeastern U.S.

(Sheet 37 of 57)

- Spiderling (Boerhaavia diffusa).
- Spiderwort (Transdescantia ohiensis). Uncommon weak-stemmed herb in moist soils in central U.S.
- Spiked loosestrife (Lythrum salicaria). Common erect branched herb in swamps and wet meadows in northeastern U.S.
- Spiny pigweed (Amaranthus spinosus). Common erect spiny herb in rich moist areas in southeastern U.S.
- Spotted cats-ear (Hypochaeris radicata). Common basal-leaved herb in waste areas of northern U.S.
- Spotted spurge (Euphorbia maculata). Common hirsute branched herb in dry soil in eastern U.S.
- Spotted star-thistle (Centaurea maculosa). Uncommon branded herb in waste areas in northeastern U.S.
- Spotted touch-me-not (Impatiens capensis). Uncommon branched herb in moist soils in northern U.S.
- Springbark clover (Trifolium wormskjoldii). Uncommon branched herb in sandy soils in Pacific northwest.
- Spring ladies' tresses (Spilanthes vernalis). Common branched herb in moist or wet soils in eastern U.S.
- Spurge (Chamaesyce blodgetti). Uncommon branched herb in moist soils in eastern U.S.
- Spurge (Chamaesyce hirta). Uncommon branched herb in moist soils in eastern U.S.
- Spurge (Euphorbia dentata). Uncommon branched herb in moist soils in southeastern U.S.
- Spurge (Euphorbia polygonifolia). Common branched prostrate herb on sandy shores on east coast and Great Lakes.
- Spurge (Euphorbia serpens). Uncommon branched small herb in waste areas in northcentral U.S.
- Stickweed (Hackelia virginiana).
- Stinging nettle (Urtica dioica). Frequent branched stinging herb in dry woods and thickets over entire U.S.
- Stonecrop (Sedum sarmentosum). Uncommon tufted herb in dry soils in eastern U.S.
- String lily (Crinum americanum).
- Swamp milkweed (Asclepias incarnata). Common erect stout herb in moist soils in eastern U.S.

(Sheet 38 of 57)

- Sundrops (Oemothera perennis). Uncommon erect herb with showy flowers in dry soils in northern U.S.
- Sunflower (Helianthus debilis). Uncommon erect herb with showy flowers in eastern U.S.
- Swallowwort (Cynanchum angustifolium). Uncommon viney herb with large pads in moist soils and thickets in eastern U.S.
- Swamp beggartick (Bidens connata). Common branched erect herb in swamps and moist soil in eastern U.S.
- Swamp dock (Rumex verticillatus). Common erect leafy herb in wet soils in eastern U.S.
- Swamp loosestrife (Lysimachia terrestris). Common branched herb in swamps and wet soils in southeastern U.S.
- Swamp rose mallow (Hibiscus palustris). Common shrubby herb with showy flowers in wet soils and ditches in southeastern U.S.
- Sweet clover (Meliotus indicus). Abundant branched herb in waste and cultivated areas in Pacific northwest.
- Tall beggartick (<u>Bidens vulgata</u>). Common erect herb in moist soil over entire soils.
- Tall bellflower (Campanula americana). Uncommon erect herb in moist thickets and woods in central U.S.
- Tall unquefoil (<u>Potentilla arguta</u>). Uncommon erect stout herb in dry soils in northeastern U.S.
- Tall coneflower (Rudbeckia laciniata). Common branched herb with showy flowers in moist thickets over entire U.S.
- Tall goldenrod (Solidago altissima). Common stout hirsute herb with showy flowers in dry soil in eastern U.S.
- Tallow plantain (<u>Plantago</u> <u>hookeriana</u>). Uncommon small herb in dry soils in eastern U.S.
- Tall prairie-gentian (<u>Eustoma exaltatum</u>). Uncommon erect stout herb in dry soils in southcentral U.S.
- Tall wormwood (Artemisia caudata). Common slender leafy herb in dry sandy soils in eastern U.S. Abundant on sea beaches.
- Tansy ragwort (Senecio jacobaea). Common woolly stout herb in waste areas in northeastern U.S.
- Tege guaje (Leucaena pulnerulenta). Uncommon tropical herb in sandy soils in Texas.
- Texas frogfruit (Phylla incisa). Uncommon branched herb in moist soils in Texas.
- Texas geranium (Geranium texanum). Uncommon branched low herb in dry soils in Texas.

(Sheet 39 of 57)

- Texas nightshade (Solanum triquetrum). Uncommon herb in waste areas and moist thickets in Texas.
- Texas palafoxia (Palafoxia texana). Uncommon stout erect herb in dry soil in Texas.
- Texas prickly pear cactus (Opuntia lindheimeri). Common fleshy herb in dry sandy soils in Texas and southwest U.S.
- Texas snoutbean (Rhynchosia texana). Uncommon branched herb in dry sandy soils in Texas.
- Texas vervain (Verbena halei). Common erect stiff herb in waste areas in Texas.
- Thistle (Carduus smallii). Uncommon erect spiny herb in moist soils in eastern U.S.
- Thornless thistle (Centaurea americana). Common rough stout herb in dry soils in southern U.S.
- Thoroughwort (Eupatorium hyssopifolium). Common rough bushy herb in dry fields in eastern U.S.
- Three-seeded mercury (Acalypha rhombiodea). Common erect branched herb in dry woods and thickets in eastern U.S.
- Tick trefoil (Desmodium glabellum). Common procumbent herb in dry sandy woods in eastern U.S.
- Toadflax (Linaria canadensis). Common fleshy erect herb in dry soils over entire U.S.
- Touch-me-not (Impatiens biflora). Common branched herb with showy flowers in moist soils over northern U.S.
- Touch-me-not (Impatiens noli-tangere). Uncommon branched herb with showy flowers in moist soils in northeastern U.S.
- Trailing wild bean (Strophostyles helvola). Common prostrate twining herb in sandy soil in eastern U.S.
- Tread softly (Cnidoscolus stimulosus). Uncommon stinging bristly herb in dry sandy soils on gulf and east coasts.
- Tropical neptunia (Neptunia pubescens).
- True aloe (Aloe vera). Uncommon tropical fleshy herb in sandy soils in Texas and Florida.
- Tumble mustard (Sisybrium altissimum). Common erect rigid herb in waste areas over northern U.S.
- Varnish leaf (Dondonaea viscosa).
- Velvetleaf (Abutilion theosprasti). Uncommon stout velvety herb in waste areas in eastern U.S. Common in southeastern U.S.

(Sheet 40 of 57)

- Venus' looking glass (Specularia biflora). Uncommon slender herb in dry soil in southern U.S.
- Vervain (Verbena bonaniensis). Uncommon erect herb in dry soils in eastern U.S.
- Vervain (Verbena brasiliensis). Uncommon erect herb in dry soils in eastern U.S.
- Vervain (Verbena scabra). Uncommon erect herb in dry soils in eastern U.S.
- Vetch (Vicia angustifolia). Frequent twining herb in dry soils and waste areas in southeastern U.S.
- Vetch (Vicia americana). Frequent, twining herb with showy flowers in dry soils and pastures in southeastern U.S.
- Violet (Violet spp.). Genus common to abundant in woods and thickets throughout entire U.S.
- Virginia dayflower (<u>Commelina virginica</u>). Common procumbent herb in moist soils in southeastern U.S.
- Virginia peppergrass (Pepidium virginicum). Frequent herb in dry sandy soils in eastern U.S. Abundant on sandy east coast.
- Vulpia (Vulpia octoflora).
- Water amaranth (Amaranthus cannabinis). Uncommon branched erect herb in swamps and on river shores in eastern U.S.
- Water amaranth (Amaranthus tamariscinus). Uncommon branched erect herb in swamps in southwest U.S. and Texas.
- Water amaranth (Amaranthus tuberculatus). Uncommon branched erect herb in wet places in eastern U.S.
- Water dock (Rumex orbiculatus). Common stout erect herb in swamps and wet soil in eastern U.S.
- Water hemlock (Cicuta bulbifera). Uncommon stout erect branching herb in swamps and wet places in eastern U.S.
- Water hemp (Acnida altissima). Uncommon erect stout herb in wet soils in eastern U.S.
- Water hemp (Acnida fasciculata). Uncommon branched erect herb in swamps in southern U.S.
- Water horehound (Lycopus americanus). Common stiff erect herb in wet soils over entire U.S.
- Water horehound (Lycopus rubellus). Uncommon erect branched herb in wet soils in eastern U.S. to Minnesota.
- Water horehound (Lycopus virginicus). Uncommon erect herb in wet soil in eastern U.S.

(Sheet 41 of 57)

- Watson's willow-herb (Epilobium watsonii). Uncommon erect stout herb in moist soils in Pacific northwest.
- Western mugwort (Artemisia ludoirciana). Common woolly branched herb in dry soil in western U.S.
- Western ragweed (Ambrosia psilostachya). Common thick-leaved herb in moist open soils in western U.S.
- White bog-orchid (Habenaria dilatata). Uncommon leafy herb in bogs and wet woods in northern U.S.
- White campion (Lychnis alba). Common pubescent branching herb in waste areas in northeastern U.S.
- White clover (<u>Trifolium repens</u>). Abundant branching low herb in moist soils over entire U.S.
- White heath aster (Aster ericoides). Common hirsute bushy herb in dry soil in northern U.S.
- White milkwort (Polygala alba). Uncommon woody erect herb in prairie soils in central U.S.
- White snakeroot (Eupatorium rugosum). Uncommon herb in dry soils in northern U.S.
- White sweet clover (Melilotus albus). Frequent erect branched herb in waste areas in eastern U.S.
- White thoroughwort (Eupatorium album). Uncommon branched herb in sandy soils in eastern U.S.
- Whorled milkweed (Aselepias verticillata). Uncommon whorl-leaved herb in dry soils in eastern U.S.
- Wild balsam apple (Momordica charantia). Uncommon twining herb along streams and in waste areas in eastern U.S.
- Wild blue lettuce (Lactuca canadensis). Common leafy erect herb in moist soils and waste areas in eastern U.S. Frequent in deep south.
- Wild columbine (Aquilegia candensis). Uncommon branching herb in rocky woods in eastern U.S.
- Wild cucumber (Echinocystis lobata). Uncommon branched twining herb in thickets in eastern U.S.
- Wild hemp (Cannabis sativa). Common introduced erect herb in waste areas in northern U.S.
- Wild lettuce (Lactuca biennis). Common erect herb in dry soils and waste areas in eastern U.S.
- Wild lettuce (Lactuca floridana). Common herb in waste areas in Florida and deep south.

(Sheet 42 of 57)

- Wild lettuce (Lactuca graminifolia). Uncommon erect herb in dry soils in northern and eastern U.S.
- Wild lettuce (Lactuca hirsuta). Uncommon hirsute erect herb in dry soil in eastern U.S.
- Wild lettuce (Lactuca scariola). Common prickly herb in fields and waste areas in northern U.S.
- Willow dock (Rumex salicifolius). Common branched herb in moist soils in eastern U.S.
- Willow-herb (Epilobium glandulosum). Common erect herb in moist soils in eastern U.S.
- Willow-leafed dock (Rumex mexicanus). Common branched herb in moist soils and waste areas in eastern U.S.
- Winged pigweed (Cycloloma atriplicifolium). Uncommon bushy herb along streams and in moist soils in central U.S.
- Wiry blue-eye-grass (Sisyrinchium biforme). Uncommon leafy herb in grassy fields in eastern U.S.
- Wood nettle (Laportea canadensis). Frequent to abundant herb in open woods and thickets in central U.S.
- Wood sorrel (Oxalis dillenii). Uncommon low branching herb in fields and waste places in eastern U.S.
- Woolly croton (Croton capitatus). Frequent silvery branched herb in dry soils in southern U.S.
- Woolly stemodia (Stemodia tomentosa). Uncommon hirsute herb in waste areas in northern U.S.
- Wormseed mustard (Erysimum cheiranthoides). Common erect branched herb along streams and fields in northern U.S.
- Wormwood (Artemisia biennis). Common leafy branched herb in waste areas throughout U.S.
- Wormwood (Artemisia serrata). Uncommon stout branched herb in dry soils and on prairies in eastern and central U.S.
- Yarrow (Achillea millefolium). Common erect herb in waste areas in eastern U.S.
- Yellow abronia (Abronia latifolia). Uncommon erect branching herb in dry soils in Pacific northwest.
- Yellow clover (<u>Trifolium agrarum</u>). Common to frequent low herb in most soils in eastern U.S., especially north.
- Yellow cress (Rorippa palustris). Uncommon branching herb in lakes, streams, and wet areas in northern U.S.
- Yellow cress (Rorippa teres). Uncommon branched herb in wet areas in northern U.S.

(Sheet 43 of 57)

- Yellow dock (Fumex persicaroides). Common stout branched herb on sandy shores across northern U.S.
- Yellow flag (<u>Iris pseudacorus</u>). Uncommon fleshy herb in moist to dry soils in northern U.S.
- Yellow parentucellia (Parentucellia viscosa).
- Yellow sweet clover (Metitotus officinalis). Common low herb in most soils in eastern U.S.
- Yellow wood sorrel (Oxalis stricta). Common branched herb in waste areas & fields in eastern U.S., especially south.
- Yerba (Eclipta alba). Common rough herb along streams and in waste areas in eastern U.S. to Nebraska.
- ---- (Calylophus australis).
- ---- (Euthamia leptocephala). Uncommon branched herb in moist soil in southcentral U.S. and Texas.
- ---- (Hemicarpa micrantha). Uncommon tufted herb in moist sandy soil over entire U.S. except southwest.
- ---- (Limnosciadium pumilum).
- ---- (Matelea decipiens).
- ---- (Scaevola plumieri).
- ---- (Thelypteris normalis).
- ---- (Wedelia tribolata).

VINES

- Beach morning glory (Ipomoea stolonifera). Common vine of dunes and sandy areas on east and gulf coasts.
- Bittersweet (Celastrus orbiculatus). Common woody vine in woods areas in eastern U.S.
- Canada moonseed (Menispermum canadense). Uncommon to common vine in thickets and woods, clambering over vegetation and climbing in trees, in eastern U.S.
- Carolina moonseed (Menispermum carolinum). Uncommon to common vine in thickets and woods, clambering over vegetation and climbing in trees, in southeastern U.S.

(Sheet 44 of 57)

- Catbriar (Smilax hispida). Uncommon to common vine climbing in trees and thickets in eastern U.S.
- Climbing milkweed (bindweed) (Cynanchum palustre). Frequent vine clambering over other vegetation in open areas in eastern U.S.
- Common dodder (Cuscuta obtusiflora). Uncommon vine growing on other vegetation in eastern U.S.
- Common greenbriar (Smilax rotundifolia). Common vine in open areas and in thickets in eastern U.S.
- Cusp dodder (Cuscuta cuspidata). Rare vine growing on other vegetation in southern U.S.
- Field dodder (Cuscuta pentagona). Rare vine growing on other vegetation in southern U.S.
- Fox grape (Vitus labrusca). Common woody vine climbing in thickets and woods in eastern U.S.
- Fringed catherier (Smilax bona-nox). Common vine climbing in thickets and growing in open areas in eastern U.S.
- Frost grape (Vitus vulpina). Common vine growing in open areas and thickets in northeastern U.S.
- Hedge bindweed (Convolvulus sepium). Common to abundant vine clambering over vegetation in eastern U.S.
- Japanese honeysuckle (Lonicera japonica). Frequent woody vine clambering over other vegetation throughout entire U.S.
- Marine ivy (Cissus incisa). Uncommon to common vine clambering over vegetation in sandy open areas in eastern U.S.
- Moonflower (Ipomoea tuba). Abundant vine on beaches in Florida.
- Muscadine (Vitus rotundifolia). Common woody vine climbing high in trees and thickets in southeastern U.S. Also occurs in open areas.
- Pacific morning glory (Convolvulus soldanella). Uncommon to common vine on beaches and sandy areas on west coast.
- Peppervine (Ampelopis arborea). Common vine clambering over vegetation or climbing high in trees in eastern U.S.
- Poison ivy (Rhus radicans). Frequent ground cover under trees and climbing onto trees throughout entire U.S.
- Railroad vine (<u>Ipomoea pes-caprae</u>). Abundant vine on beaches and tidal areas in Florida.
- Riverbank grape (Vitus riparia). Common woody vine climbing high in trees or in open areas in eastern U.S.
- Saltmarsh morning glory (<u>Ipomoea sagittata</u>). Common vine clambering over vegetation in eastern U.S.

(Sheet 45 of 57)

- Sharppod morning glory (<u>Ipomoea trichocarpa</u>). Uncommon vine clambering over vegetation in open areas.
- Simple-leaved peppervine (Ampelopsis cordata). Uncommon to common vine on woods edge in eastern U.S.
- Strangler fig (Ficus aurea). Uncommon vine only in Florida climbing high into woody vegetation.
- Summer grape (Vitus aestivalis). Common vine clambering over vegetation or climbing high into woods and thickets in eastern U.S.
- Supplejack (Berchemia scandens). Common woody vine climbing high in trees and thickets in eastern U.S.
- Trumpet creeper (Campsis radicans). Common woody vine with showy flowers climbing high in trees and thickets in eastern U.S.
- Vine milkweed (<u>Ipomoea alba</u>). Uncommon vines clambering over vegetation in open areas and prostrate in eastern U.S.
- Virginia creeper (Parthenocissus quinquefolia). Frequent vine climbing high in trees and thickets in eastern U.S.
- Wild bamboo (Smilax auriculata). Uncommon vine climbing in thickets and trees.
- Wild morning glory (<u>Ipomoea trilobata</u>). Common vine in open areas, prostrate or clambering over vegetation, in eastern U.S.
- Woodbine (Parthenocissus inserta). Uncommon vine climbing in thickets and trees in eastern U.S.

SHRUBS AND SMALL TREES

- Alder (Alnus serrulata). Common shrub along streams and lakes in eastern
- Alder (Alnus sinuata). Common shrub along streams and rivers in Pacific northwest.
- American beautyberry (Callicarpa americana). Abundant shrub in open woods and thickets in eastern U. S.
- American elderberry (Sambucus canadensis). Common shrub in waste areas, thickets, and fence rows in eastern U. S.
- American mistletoe (Phoradendron flavescens). Abundant parasitic woody plant in oaks and hardwoods in southeastern U. S.
- American mountain-ash (Sorbus americana). Common in low woods and moist areas in northeastern U. S.

(Sheet 46 of 57)

- American plum (Prunus americana). Common tree along streams and rivers in moist soil in eastern U.S.
- Arbutus (Arbutus menziesii). Common leathery shrub in dry soil on west coast.
- Athel (Tamarisk africana). Uncommon tropical, introduced tree in dry areas of Texas.
- Autumn olive (Elegnus umbellata). Common cultivated shrub in most dry soils in eastern U.S.
- Baldhip rose (Rosa gymnocarpa). Uncommon shrub in dry soils in Pacific northwest.
- Barberry (Berberis thunbergii). Common cultivated shrub in most soils throughout entire U.S.
- Bayberry (Myrica pensylvanica). Frequent aromatic shrub in coastal sandy soils in eastern U.S.
- Beach plum (Prunus maritima). Uncommon tree in sandy coastal soils on east coast.
- Bearberry honeysuckle (Lonicera involucrata). Uncommon shrub in most interior soils in northern U.S.
- Blackberry (<u>Rubus argutus</u>). Abundant thorny shrub in most soils in eastern U.S.
- Blackberry (Rubus bifrons). Frequent thorny shrub in dry soils in eastern U.S.
- Black mangrove (<u>Avicennia germinans</u>). Frequent tree on saltwater shores and islands in south Florida. Occasional in Texas.
- Black raspberry (Rubus <u>leucodermis</u>). Common spiny shrub in moist soils in Pacific northwest.
- Black raspberry (Rubus occidentalis). Common spiny shrub in moist soils in eastern U.S.
- Black willow (Salix nigra). Abundant tree in wet freshwater areas throughout U.S.
- Brazilian peppertree (Schinus terebinthefolius). Frequent introduced tree on sandy soils in south Florida. Cultivated as ornamental.
- Buffaloberry (Shepheria canadensis). Common scurfy shrub on stream banks in northern U.S.
- Buttonbush (Cephalanthus occidentalis). Abundant shrub in swamps and marshes in interior southeastern U.S.
- Buttonwood (Conocarpus erecta). Common tree in sandy soils in south Florida.

(Sheet 47 of 57)

- Cabbage palm (Sabal palmetto). Common tree in sandy soils in Florida, Texas, and along gulf coast. Cultivated as ornamental.
- Carolina rose (Rosa carolina). Frequent spiny shrub in waste areas and marshes in southeastern U.S.
- Cascara buckthorn (Rhamnus purshiana). Common shrub in dry soils in Pacific northwest.
- Catalpha (Catalpha speciosa). Common introduced tree in most soils in southeastern U.S. Cultivated as ornamental.
- Century plant (Agave americana). Uncommon succulant plant in dry sandy soils in Florida and Texas.
- Cherry laurel (Prunus caroliniana). Common cultivated shrub in most soils in southeastern U.S.
- Chinaberry tree (Melia azedarach). Uncommon introduced tree in dry soils in southeastern U.S. Cultivated as ornamental.
- Chinese tallow tree (Sapium sebiferum). Uncommon introduced cultivated tree in most soils in southeastern U.S.
- Chinese tamarisk (<u>Tamarisk chinesis</u>). Uncommon introduced tree in dry sandy soils in deep south. Cultivated as ornamental.
- Citrus (Citrus sinensis). Common cultivated tree in most soils in Florida, Texas, deep south, and southwestern U.S.
- Coast red elderberry (Sambucus racemosa). Common shrub in moist open areas in Pacific northwest.
- Common chokecherry (<u>Prunus virginiana</u>). Common shrub in most soils in eastern U.S.
- Common juniper (<u>Juniperus communis</u>). Frequent shrub in upland soils in southern U.S. Cultivated as ornamental.
- Common snowberry (Symphoricarpos albus). Uncommon shrub in woods and thickets in southeastern U.S.
- Common St. John's wort (Hypericum perforatum). Common shrub in upland soils in eastern U.S.
- Crabapple (Malus angustifolia). Uncommon tree in most upland soils in eastern U.S.
- Crack willow (Salix fragiles). Uncommon introduced tree in wet soils in central and eastern U.S.
- Creeping juniper (Juniperus horizontalis). Common shrub in upland soils in northern U.S. Cultivated as ornamental.
- Dahoon (<u>Ilex cassine</u>). Common shrub in sandy coastal soils on gulf and east coasts. Tolerates slight salinity.
- Desert olive (Forestiera angustifolia). Uncommon shrub in dry sandy soils in southwest U.S. and Texas.

(Sheet 48 of 57)

- Devil's walking stick (Aralia spinosa). Common small tree in dry soils in woods or open areas in eastern U.S.
- Dwarf St. John's work (<u>Hypericum mutilum</u>). Common shrub in fields and moist areas in eastern U.S.
- Eastern hophornbeam (Ostrya virginiana). Frequent tree in moist to dry soils in woods and thickets in eastern U.S.
- Elderberry (Sambucus callicarpa). Common shrub in waste places in eastern U.S.
- European mountain-ash (Sorbus aucuparia). Uncommon introduced tree in dry soils in eastern U.S. Cultivated as ornamental.
- Evergreen blackberry (Rubus laciniatus). Common spiny shrub in moist soils in western U.S.
- False willow (<u>Baccharis angustifolia</u>). Uncommon shrub in sandy soils in eastern U.S., especially on coasts.
- Fig (Ficus carica). Common cultivated tree in upland soils in southeastern U.S.
- Florida elderberry (Sambucus simpsonii). Common shrub in moist sandy soils in Florida.
- Florida privet (Forestiera segregata). Common shrub in moist soils in Florida.
- Flowering dogwood (Cornus florida). Frequent small tree with showy flowers in eastern U.S. Cultivated throughout U.S. as ornamental.
- Gallberry (<u>Ilex glabra</u>). Uncommon shrub in sandy coastal soils along east and gulf coasts.
- Gray dogwood (Cornus racemosa). Common shrub in moist soils in northern U.S.
- Ground blueberry (Vaccinium myrsinitis). Common leathery shrub in low woods and thickets in eastern U.S.
- Groundsel tree (Baccharis halimifolia). Frequent shrub in salt marshes on east and gulf coasts.
- Guava (Psidium guajava). Uncommon shrub in sandy soils in Florida.
- Halberd-leaved willow (Salix hastata). Uncommon small tree in moist soils in northcentral U.S. Cultivated as ornamental.
- Hawthorn (Crataegus fabellata). Uncommon thorny small tree on stream banks in northcentral U.S.
- Highbush blueberry (Vaccinium corymbosum). Common shrub in swamps, thickets, and woods in southeastern U.S.
- Highbush cranberry (Viburnum edule). Common shrub in low areas in Pacific northwest.

(Sheet 49 of 57)

- Himalayan blackberry (<u>Rubus discolor</u>). Uncommon introduced shrub in moist areas in Pacific northwest.
- Honey mesquite (Prosopis glandulosa). Common small tree in dry sandy soils in southwestern U.S.
- Honeysuckle (Lonicera x bella). Uncommon cultivated shrub in moist soils.
- Hooker willow (Salix hookeriana). Uncommon shrub in moist areas in Pacific northwest.
- Indian almond (Terminalia catappa). Uncommon introduced small tree in moist soils in Florida.
- Juneberry (Amelanchier laevis). Common small tree in dry woods in eastern U.S. to Missouri.
- Lantana (Lantana involucrata). Uncommon tropical shrub in moist soils in Texas.
- Lantana (Lantana ovatifolia). Uncommon tropical shrub in moist soils in Texas.
- Macartney rose (Rosa bracteata). Uncommon introduced spiny shrub in woods and waste areas in southeastern U.S.
- Marginated century plant (Agave americana var. marginata). Uncommon succulant plant in dry sandy soils in Florida, Texas, and southwestern U.S.
- Marsh elder (<u>Iva frutescens</u>). Frequent shrub in salt marshes and on sandy shores on east and gulf coasts.
- Marsh hibiscus (Hibiscus moscheutos). Common shrub with showy flowers in wet and moist areas in southeastern U.S.
- Meadow rose (Rosa blanda). Common thornless shrub in moist areas in northern U.S.
- Multiflora rose (Rosa multiflora). Frequent spiny shrub in moist areas in eastern U.S. Cultivated as ornamental over entire U.S.
- Naked wood (Myricanthes fragrans). Uncommon tropical shrub in moist sandy soils in Florida and Texas.
- Narrowleaf marsh elder (<u>Iva angustifolia</u>). Uncommon shrub in salt marshes and on sea shores in eastern U.S.
- Nine-bark (Physocarpus spulifolius). Common shrub in moist soils in northern U.S.
- Nits and lice (Hypericum drummondii). Uncommon bushy shrub in dry soil in eastern U.S. to Kansas.
- Northern dewberry (Rubus flagellaris). Common spiny shrub in waste places in northern U.S.
- Oleander (Nerium oleander). Common tropical shrub in dry sandy soils in southern U.S., especially southwest. Tolerates salinity and cultivated as ornamental.

(Sheet 50 of 57)

- Orange grass (Hypericum gentianoides). Uncommon erect shrub in sandy soil in eastern U.S. to Missouri.
- Pacific dogwood (Cornus nuttallii). Common shrub in moist areas in Pacific northwest.
- Pacific nine-bark (Physocarpus capitatus). Common shrub in moist soils in Pacific northwest.
- Pacific willow (Salix lasiandra). Common gray-green small trees in moist soil in western U.S.
- Painted leaf poinsettia (Poinsettia heterophylla). Uncommon tropical shrub with showy flowers in Florida. Cultivated as ornamental.
- Peachleaf willow (Salix amygdaloides). Frequent small tree in moist soils in north central U.S.
- Possumhaw (<u>Ilex decidua</u>). Frequent shrub with showy berries in moist soils in eastern U.S. to Kansas.
- Prickly rose (Rosa acicularis). Common very spiny shrub in moist areas in northern U.S.
- Raspberry (Rubus idaeus). Common, scarcely spined shrub in waste areas and thickets in eastern U.S.
- Red alder (<u>Alnus</u> <u>rubra</u>). Common shrub along streams and rivers in Pacific.
- Red currant (<u>Ribes sanguineum</u>). Uncommon shrub in moist soils in northern U.S.
- Red elderberry (Sambucus pubens). Uncommon shrub in rocky and woody areas in northern U.S.
- Red mangrove (Rhizophora mangle). Common tropical small tree on salt water shores in Florida.
- Red osier dogwood (Cornus stolonifera). Abundant shrub with red stems in moist soils in northern U.S.
- Roosevelt groundsel (Baccharis neglecta). Common bushy shrub in moist sandy soils and along streams in deep south.
- Rough-leaved dogwood (Cornus drummondii). Common shrub in moist soils in central U.S.
- Round-leaved dogwood (Cornus rugosa). Uncommon shrub in shady rocky areas in northern U.S.
- Russian olive (<u>Eleagnus angusțifolia</u>). Common thorny shrub in dry sandy soils in eastern U.S. Cultivated for wildlife.
- Salal (Gardtheria shallon). Common shrub in moist woods in Pacific northwest. Cultivated for florist greenery.
- Salmonberry (Rubus spectabilis). Common shrub in moist soils in Pacific northwest.

(Sheet 51 of 57)

- Saltcedar (Tamarisk parviflora). Common small tree of salt marshes and sandy shores on southeastern U.S. coasts.
- Sandbar willow (Salix interior). Frequent small tree in moist area in northern and eastern U.S.
- Sand blackberry (Rubus cuneifolius). Common spiny shrub in sandy soils in southeastern U.S.
- Sand cherry (Prunus pumila). Uncommon spreading shrub on sandy or gravelly shores in northern U.S.
- Sand pine (Pinus clousa). Common evergreen shrub on sandy shores and islands on gulf coast.
- Sawtooth oark (Quercus acutissima). Uncommon small tree in sandy soils in southeastern U.S.
- Schlecht blackberry (Rubus ursinus).
- Scotch broom (Cytisus scoparius). Frequent bushy shrub on hills and dry areas in Pacific northwest. Cultivated as ornamental.
- Scouler willow (Salix scouleriana). Common small tree in moist soils in western U.S.
- Seacoast marsh elder (Iva imbricata). Uncommon shrub in salt markses on east and gulf coasts.
- Serviceberry (Amelanchier canadensis). Common small tree of dry woods in southeastern U.S.
- Shining sumac (Rhus copallina). Common small shrub in waste areas in eastern U.S. Abundant in deep south.
- Shore pine (Pinus virginiana). Common small evergreen tree in poor soils and beaches in eastcentral U.S.
- Shrub orache (Atriplex polycarpa). Uncommon shrub in sandy beach soils in eastern U.S.
- Shrub poison ivy (Rhus radicans). Abundant shrub in marshes, swamps, and woods in southeastern U.S.
- Shrub verbena (Lantana camara). Common shrub with showy flowers in deep south and Florida. Cultivated as ornamental.
- Sitka mountain-ash (Sorbus sitchensis). Common small tree in moist areas in Pacific northwest.
- Silky dogwood (Cornus obliqua). Common shrub in moist soils in northern and eastern U.S.
- Smooth sumac (Rhus glabra). Common small tree in waste areas in eastern and central U.S.
- Snowberry (Chiococca alba). Uncommon erect shrub in moist soils and on river banks in northern U.S. and California.

(Sheet 52 of 57)

- Southern dewberry (Rubus trivalis). Abundant spiny shrub in waste areas in southeastern U.S.
- Spanish dagger (Yucca treculeana). Uncommon stiff spined plant in dry sandy soils in southern U.S.
- Spice bush (Lindera benzoin). Uncommon smooth shrub in moist woods, thickets, and along streams in northeastern U.S.
- Spiraea (Spiraea tomentosa). Uncommon erect shrub in swamps and low ground in northeastern U.S.
- Staghorn sumac (Rhus typhina). Common small tree in dry waste areas in eastern and central U.S. Abundant in northcentral U.S.
- St. John's wort (<u>Hypericum</u> <u>hypericoides</u>). Uncommon shrub in moist soil in eastern U.S.
- Swamp dogwood (Cornus amomum). Frequent shrub in wet and moist areas in southeastern U.S.
- Swamp gooseberry (Ribes lacustre). Common spiny shrub in swamps and wet woods over entire U.S.
- Swamp privet (Forestiera acuminata). Common shrub in wet and moist areas in southeastern U.S.
- Swamp rose (Rosa palustris). Common spiny shrub in moist areas in southeastern U.S.
- Tamarisk (Tamarisk gallica). Uncommon small tree in dry sandy soils in southeastern U.S.
- Tartarian honeysuckle (Lonicera tartarica). Uncommon shrub in waste areas in northeastern U.S. Cultivated as ornamental.
- Texas huisache (Acacia smallii). Common small tree in sandy soils in
- Texas lantana (Lantana horrida). Uncommon tropical shrub in moist soils in Texas.
- Thorny eleagnus (Eleagnus pungens). Common thorny evergreen shrub in many soils in eastern U.S. Cultivated as ornamental and for rights-of-ways over entire U.S.
- Toothache tree (Zanthoxylum clava-herculis). Common thorny shrub in waste areas and woods in southeastern U.S.
- Turkey oak (Quercus laevis). Common small tree in sandy coastal soils along east coast.
- Water birch (Betula occidentalis). Common small tree in wet areas in western U.S. (not on coasts).
- Wax myrtle (Myrica cerifera). Abundant evergreen aromatic shrub in sandy soils on east and gulf coasts.

(Sheet 53 of 57)

- White mangrove (Languncularia racemosa). Common tropical shrub on salt water shores in Florida.
- White mulberry (Morus alba). Common introduced small tree in moist soils in eastern U.S. Cultivated as ornamental.
- White willow (Salix alba). Common shrub in moist soils in northern U.S. and California.
- Wild black current (Ribes americanum). Common erect unarmed shrub in woods in northern U.S. and southwest.
- Wild indigo (Baptisia leucophaea). Uncommon bushy shrub on dry sandy shores in Texas.
- Wild rose (Rosa rugosa). Uncommon spiny shrub in moist soils in northern U.S.
- Wild Virginia rose (Rosa viriginiana). Uncommon spiny shrub in moist soils in southeastern U.S.
- Willow (Salix rigida). Uncommon shrub in moist soils in northern U.S.
- Yaupon (Ilex vomitoria). Frequent evergreen shrub in moist sandy soils on east and gulf coasts. Cultivated as ornamental.
- Yellow sophora (Sophora tomentosa). Uncommon leguminous shrub on plains and prairies in southwest U.S. and Texas.
- Yucca (Yucca pendula). Uncommon stiff prickly shrub in dry soils in southern U.S.

LARGE TREES

- American beech (Fagus grandifolia). Common deciduous tree in wet areas, hardwood bottomlands, and along streams in eastern U.S. to Missouri.
- American elm (<u>Ulmus americana</u>). Common deciduous tree in moist soils in open and in woods in eastern U.S. to Kansas.
- American sycamore (<u>Platanus occidentalis</u>). Common deciduous tree in moist areas and stream banks in eastern and central U.S. to Colorado.
- Australian pine (Casuarina equisetifolia). Abundant introduced evergreen tree in sandy soils in Florida and California.
- Austrian pine (Pinus nigra). Uncommon introduced evergreen tree in moist soils in northeastern U.S.
- Bald cypress (Taxodium distichum). Common deciduous tree in standing water and swamps in southeastern U.S.
- Balsam poplar (Populus balsamifera). Uncommon deciduous tree in moist soils in Great Lakes region and western mountains.
- Basswood (<u>Tilia americana</u>). Common deciduous tree in moist soils in eastern U.S. Very large leaves.

(Sheet 54 of 57)

- Bigtooth aspen (Populus grandidentata). Common deciduous tree in moist soils in northeastern U.S.
- Bitternut hickory (Carya cordiformis). Common deciduous tree in moist soils and hardwood bottomlands in eastern U.S.
- Black cherry (<u>Prunus serotina</u>). Common deciduous tree in moist soils in eastern U.S. to Kansas. Cultivated as ornamental.
- Black cottonwood (Populus trichocarpa). Common deciduous tree in wet areas and moist soils in Pacific northwest.
- Black locust (Rovinia pseudo-acacia). Frequent deciduous leguminous tree in dry soils in eastern U.S.
- Black oak (Quercus velutina). Common deciduous tree in dry soils in eastern U.S. to Kansas.
- Black walnut (<u>Juglans nigra</u>). Common deciduous tree in most soils in eastern U.S. to Kansas. Very valuable furniture wood.
- Boxelder (Acer <u>negundo</u>). Frequent deciduous tree in moist soils, dry poor soils, and in waste areas throughout entire U.S. except Texas and far west.
- Bur oak (Quercus macrocarpa). Common deciduous trees in moist soils and bottomlands in central U.S., primarily northcentral.
- Date palm (Phoenix dactylifera). Frequent tropical evergreen tree in sandy soils in Florida, Texas, deep south coasts, and California.
- Desert hackberry (Celtis pallida). Uncommon deciduous tree in moist sandy soils in Texas and southwest U.S.
- Nouglas fir (Pseudotsuga menziesii). Common evergreen tree in mountain areas in western U.S. Valuable lumber tree.
- Eastern cottonwood (<u>Populus deltoides</u>). Frequent deciduous tree along streams and in bottomlands in eastern U.S. to Kansas. Valuable lumber tree.
- Eastern red cedar (Juniperus virginiana). Frequent evergreen tree in moist to dry soils, especially alkaline soils, in eastern U.S.
- Green ash (Fraxinus pennsylvanica). Common deciduous tree in wet bottomlands in eastern U.S.
- Hackberry (Celtis occidentalis). Common deciduous tree in moist soils in eastern U.S., primarily northeast.
- Honeylocust (Gleditsia tricanthos). Common deciduous thorny tree in moist bottomlands in southeastern U.S.
- Laurel oak (Quercus laurifolia). Uncommon semi-evergreen tree in sandy soils in deep south and Florida near coasts.
- Lindheimer hackberry (Celtis lindheimeri). Common deciduous tree in moist soils in southeastern U.S.

(Sheet 55 of 57)

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- Live oak (Quercus virginiana). Common evergreen tree in coastal sandy soils in southeastern U.S.
- Loblolly pine (Pinus taeda). Abundant evergreen tree in moist soils in southeastern U.S. Valuable lumber tree.
- Lodgepole pine (Pinus contorta). Common evergreen tree in moist soils in western U.S. Valuable lumber tree.
- Longleaf pine (Pinus palustris). Abundant evergreen tree in moist sandy soils in southeastern U.S., especially on coastal plain.
- Mexican windmill palm (Washingtonia robusta). Common tropical evergreen tree in sandy soils in Texas. Cultivated as ornamental.
- Northern white cedar (Thuja occidentalis). Common evergreen tree in alkaline, moist, and boggy soils in northeastern U.S.
- Nuttall oak (Quercus nuttallii). Uncommon deciduous tree in moist bottomlands in deep south.
- Oregon ash (Fraxinus <u>latifolia</u>). Uncommon deciduous tree in moist soils in Pacific northwest.
- Ornamental data palm (<u>Phoenix canariensis</u>). Frequent tropical evergreen tree in sandy soils in Florida, Texas, and gulf coast. Cultivated as ornamental.
- Pin oak (Quercus palustris). Common deciduous tree in moist bottomlands in northeastern U.S. to Missouri.
- Persimmon (Diopyros virginiana). Common deciduous tree in waste areas and moist soils in southeastern U.S.
- Port Orford cedar (Chamaecyparis lawsoniana). Uncommon evergreen tree in moist soils in Pacific northwest. Valuable lumber tree. Cultivated as ornamental.
- Quaking aspen (Populus tremuloides). Frequent deciduous tree in mountain areas in western U.S. Cultivated as ornamental.
- Reclinata palm (<u>Phoenix reclinata</u>). Common tropical evergreen tree in sandy soils in Florida.
- Redbay (Persea borbonia). Uncommon evergreen aromatic tree in swamps and near streams in deep south and Florida.
- Red elm (<u>Ulmus rubra</u>). Common deciduous tree in dry soils in eastern U.S.
- Red maple (Acer rubrum). Frequent deciduous tree in moist to swampy soils in eastern U.S. Cultivated as ornamental.
- Red mulberry (Morus rubra).
- Red oak (Quercus rubra). Common deciduous tree in dry soils in eastern U.S. except deep south and Florida.

(Sheet 56 of 57)

- Red pine (Pinus resinosa). Common evergreen tree in moist soils in northeastern U.S. Valuable lumber tree.
- River birch (Betula nigra). Common deciduous tree in streams and swamps in eastern U.E.
- Saltcedar (Tamarisk ramosissima). Common evergreen tree in sandy soils on gulf and east coasts.
- Sassafras (Sassafras albidum). Common deciduous tree in moist woods and thickets in eastern U.S. Frequent in deep south.
- Shumard oak (Quercus shumardii). Uncommon deciduous tree in moist bottomland soils in southeastern U.S. except south Florida.
- Silver maple (Acer saccharinum). Common deciduous tree in bottomlands in eastern U.S. except coasts. Cultivated as ornamental.
- Sitka spruce (<u>Picea sitchensis</u>). Uncommon evergreen tree in low moist areas in <u>Pacific northwest</u>.
- Slash pine (Pinus elliottii). Common evergreen tree in moist soils in southeastern U.S. Valuable lumber tree.
- Southern red cedar (Juniperus silicicola). Uncommon evergreen tree in moist to dry soils in Florida.
- Sugarberry (Celtis <u>laevigata</u>). Common deciduous tree in moist soils in southeastern U.S.
- Sugar maple (Acer saccharum). Common deciduous tree in moist soils in northeastern U.S. Cultivated as ornamental. Valuable furniture wood. Use for maple syrup.
- Swamp white oak (Quercus bicolor). Common deciduous tree in swampy moist soils in northeastern U.S.
- Sweetgum (Liquidambar styraciflua). Frequent deciduous tree in moist to dry soils in southeastern U.S.
- Tree of heaven (Ailanthus altissima). Uncommon deciduous introduced tree in moist soils over most of U.S. Cultivated as ornamental.
- Tulip poplar (Liriodendron tulipifera). Common deciduous tree in moist to wet soils in southeastern U.S.
- Water oak (Quercus nigra). Frequent semi-evergreen tree in moist bottomlands in southeastern U.S.
- Western hemlock (<u>Tsuga heterophylla</u>). Common evergreen tree in moist soils in Pacific northwest. Cultivated as ornamental. Valuable lumber tree.
- White ash (Fraxinus americana). Common deciduous tree in moist to dry soils in eastern U.S. except south Florida.
- Willow oak (Quercus phellos). Common deciduous tree in moist bottomlands in southeastern U.S. except south Florida.

(Sheet 57 of 57)

Selected Upland Plant Species for Habitat Development on fredged Material Sites Table 2

	Species** (Alphabetized by Common Name)	Best Propagule Type	Collection Periods+	Temporary Storage Requirements	Planting Periods	Rangett	Meture	Growth Rabits	Remarks
	Charles Marthall								
	can beachgrass mophila breviligulata)1,2,3		Oet-March	In wet sand beds or in pots of sand	Feb-May	MA. NE. GL	To 1.5 m	Perennial cool season grass with stiff stems, full sun	Tolerates saline condi- tions, beach and dune areas, excellent for
									areas
Seeds July-Sprt Try, cool area March-luze St, Ma, FL, 70 0.5 m Sumer parablel, creep- Seeds July-Sprt Try, cool area May-Sprt Entire U. S. 70 1.3 m Annual grass, arching	ymus mollis)1,3	Transplants	Sept-March	In wet sand beds or in pots of sand	March-June	NE, RNV	To 1.5 m	Strong, erect, fast growing, full sun	Prefers sandy areas, good soil stabilizer
	grass spalum notatum)1.3	Seeds	July-Sept	Dry, cool area	Mrch-June	SE, W. FL.	To 0.5 m	Summer perennial, creep- ing base with upright stems, full sun	Cultivated for pasture, good cover, wide range of soils
	y rideum vulgare)1,2,3	speed	May July	Dry, cool area	Oct-Nov	Entire U. S.	To 1.3 m	Annual, winter cover crop grass, full sun	Extensively cultivated for cover and grain, requires good soil bed
Seeds Sept-March In wet sand beds or in March-June Ma.SE. FL. To 1.3 m Perental, Fev flowered, Phil son March-June Ma.SE. FL. To 1.3 m Perental, Fev flowered, Phil son Seeds July-Sept Dry, cool area April-June Entire U. S. To 2 m Perental, Dry, fool area April-June Entire U. S. To 2 m Perental, Dry, fool area April-June Entire U. S. To 2 m Perental, Dry, fool area April-June Entire U. S. To 2 m Perental, Dry, fool area April-June Entire U. S. To 2 m Perental, Dry, fool area March-Jule Entire U. S. To 2 m Perental, Dry, fool area March-Jule Entire U. S. To 2 m Perental, Dry, fool area March-Jule Entire W. S. To 2 m Perental, Dry, fool area March-Jule Entire W. S. To 2 m Dry, fool area March-Jule Entire W. S. To 2 m Dry, fool area March-Jule Entire Growing, spreading, Ference of April-Jule Entire Growing, Full son Entert, dense fast Full Ston stock Entert, Anna contains Full Ston stock Entert, Anna contains Full Ston stock Entert, Anna contains Entert Entert Entert	hinochlos crusgalii)1.3	Seeds	June-Sept	Dry, cool area	May-Sept	Entire U. S. except FL	To 2 m	Annual Grass, arching heads, full sun	Prefers moist soils, cul- tivated for waterfowl food
Seeds July-Sept Dry, cool area April-June Ma, TE, Pt. To 2 m Perentala, bardy, fast Dry, cool area April-June Ep; Apr Dry, cool area April-June Except Dry	panic grass 1	Transplants	Sept-March	In wet sand beds or in pots of sand	March-June	M. SE. FL.	To 1.3 m	Perennial, few flowered, full sun	Prefers sandy soils
Seeds July-Gept Dry. cool area April-June Entire U. S. To 2 m Perental, robust, dense sod, fig. (2)	d panic grass, nicum anceps)	Seeds	July-Sept	Dry, cool area	April-June	MA, SE, PL, MS, MRV, SP, MP	To 2 m	Perennial, hardy, fast growing, full sun	Prefers moist sandy soil
Seeds July-Sept Dry. cool area April-June Entire U. S. To 2 a Personial, dresping this seeds Sept-Set Dry. cool area April-June Entire wast Dry. cool area April-June Entire wast Dry. cool area March-June MA.SE. FI. To 2 a Stout americannial, fast Seeds July-Set Dry. cool area March-June MA.SE. FI. To 2 a Stout americannial, fast Seeds July-Set Dry. cool area March-June MA.SE. FI. To 2 a Stout americannial, fast Seeds July-Set Dry. cool area April-June ME. MA.SE. To 2 a Stout americannial, fast Seeds July-Set Dry. cool area April-June ME. MA.SE. To 2 a Stout americannial, fast Fi. MS. To 2 a Stout americannial, fast Seeds Dry. cool area April-June ME. MA.SE. To 2 a Breet, danse, fast This sin area Seeds	inestem dropogon gerardi) ^{1,3}	Seeds	July-Sept	Dry, cool area	April-June	Entire U. S. except PWW, CA	To 2 m	Perennial, robust, tufted, dense sod, full sun	Important forage grass, prefers well-drained soils
Seeds Sept-Oct Dry, cool area March-Jule SE, Ma. SE, To 0.6 a Sumer annual, faces culls, and characters of the seeds of th	grass omus inermus 1,3	Seeds	July-Sept	Dry, cool area	April-June	Entire U. S. except SE. FL. MS, SP	10 2 .	Perennial, creeping rhi- zomes, erect stems, dense sod, full sun	Important forage grass, prefers well-drained soils
Seeds Sept-Nov Dry, cool area March-July SE, Ma, MC, To 0.6 a Summer annual, evect Prince, seeds July-Det Dry, cold room March-June Ma, SE, FL, To 2 a Stout summer annual, fast Prince, seeds July-Det Dry, cold area March-June ME, Ma, SE, FL, To 2 a Stout summer annual, fast Prince, seeds July-Det Dry, cold area April-June ME, Ma, SE, To 2 a Breet, dames, fast Fr, MC, SE, To 2 a Breet, dames, fast Fr, MC, SE, To 2 a Breet, dames, fast Fr, MC, SE, SY, CA Growths, Full sum Fr. March-June SE, MC, SP, To 0.5 a Peremial, fast growing, VII sum servita, fast growing, VII sum servita, fast growing, VII sum	dropogon virginicus)	Seeds	Sept-Oct	Dry, cool area	May-Sept	Entire east- ern U. S.	10 I a	Perennial, dense culm, upright stems, full sun	Pest plant in pastures and crops, grows under most soil conditions
Seeds July-Oct Dry, cold room March-June MA, SE, FL, To 2 m Stout summer sanual, fast growthe, spreading. March-June ME, MA, SE, To 2 m Breet, dense, fast FL, Mo, SE, To 2 m Breet, dense, fast FL, Mo, SE, To 2 m Breet, dense, fast FL, Mo, SE, SE, SE, SE, SE, SE, SE, SE, SE, SE	niqum ramosum) ³	Seeds	Sept-Nov	Dry, cool area	March-July	SE, M. MS. FL	To 0.6 m	Summer annual, erect stems, good seed pro- ducer, full sun	Prefers wet soils, excel- lent waterfowl food, no soil preparation neces- sary in many cases
Seeds Aug-Oct Iry, cool area April-June NE, MA, SE, To 2 m Erect, dense, fast Pr Fr. NC, growing, full sun SP, SW, CA Transplants, Yest-round in soil beds March-June SE, NC, To 0.5 m Perental, fast growing, Ni ptr(d) ³ root stock stock	Paspalum boscianum)	Seeds	July-Oet	Dry, cold room	March-June	M, SE, FL,	To 2 m	Stout sumer annual, fast growing, spreading, full sum	Prefers moist soils, good seed producer
Transplants, Fear-round In soil beds March-June SE, MG, SP, To 0.5 m Perennial, fast growing, Wy prid) root stock stock	beardgrass dropogon glomeratus)	Seeds	Aug-Oct.	Dry, cool area	April-June	NE, MA, SE, FL, MS, SP, SW, CA	To 2 m	Erect, dense, fast growing, full sun	Prefers moist soils
	nodom dactylon hybrid) ³	Transplants, root stock	Year-round	In soil beds	March-June	SE, MS, SP,	To 0.5 m	Perennial, fast growing, sterile, full sun	Vigorous new hybrid Bermuda, pasture use

* Sources of these data are from unpublished data by the suthor and Britton and Brown (1978), Brookean (1968), Correll and Johnston (1970), CRAD (1978), Fitchcook and (1971), Fitchcook and Sarra (1973), Fitchcook (1990), Mitchcook and Engages and Indepen and England (1971), Cefiner and Halls (1974), Radord et al. (1973), Ritchcook (1990), Mitchcook and Engages and Engages (1973), Anna (1990), Mitchcook and Engages and England (1992).

** Numbers given after species name indicate the following information:

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Table 2 (Continued)

	Species (Alphabetized by Common Name) sses (Continued)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Metcht	Growth Habits	Remarks
June-Sept Dry cool area April-June Entire U. S. To 0.2 a parametal, rest goods. June-Sept Dry cool area Narch-June Entire U. S. To 3.a Persistent, full sum and leds or pots Feb-June Gi, Hr. M. To b a persistent, full sum and leds or pots Feb-June Gi, Hr. M. To b a persistent, full sum and leds or pots Feb-June Entire U. S. To 3.a Samer samed, upribt, Mass of the persistent Dry cool area Veg-Pul National Na		Transplants, root stock	Year-round	In soil beds	March-June	SE, MA, FL, SP, MS	To 0.5 .	Perennial, fast growing, sterile, full sum	Planted extensively in southern pastures for grating and hay, toler- ates salt spray
Sept-March In sand beds or pots Peb-June Sit. FM. To h so Personial, fact grounds, Sept-March In sand beds or pots Sept. FM. To h so Semant manual, upright, Peb-Sept Inty-Oct		Seeds	June-Sept	Dry, cool area	April-June	Entire U. S. except MM, PMM, MP, WE		Perennial, fast growing, abundant seeds, full sun	Pasture crop, lasms, pest in cultivated area, tolerates wide range of conditions
Jule-Sept Dry. cool area (March-June Batter U. S. To 3 a Sumer mental, upright, hall see June-Sept Dry. cool area (Marth-June Batter U. S. To 1.5 a Deces permutal, full see June-Sept Dry. cool area (Marth-Jule Batter U. S. To 1.5 a Genes chape Control or in send pots Protect Protect Dry. cool area (Marth-July Batter U. S. To 2 a Sumer manul, upright, full see Jule-Sept Dry. cool area (April-July Batter U. S. To 2 a Sumer manul, full see Jule-Sept Dry. cool area (April-July Batter U. S. To 2 a Sumer manul, full see Jule-Sept Dry. cool area (April-July Batter U. S. To 1 a Sumer manul, full see Jule-Sept Dry. cool area (April-July Batter U. S. To 1 a Sumer manul, full see Jule-Sept Dry. cool area (April-July Batter U. S. To 1 a Sumer manul, full see Jule-Sept Dry. cool area (April-Sept Drite U. S. To 1 a Genes (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. cool area (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. cool area (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. cool area (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. full see June-Sept Dry. cool area (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. full see Genes (April-Sept Drite U. S. To 1 a Genes (April Sept Marth Dry. full see Genes (April Sept Marth Dry. full Sept Marth Dry. full see Genes (April Sept Marth Dry. full Sep		Root stock, rhizomes	Sept-March	In sand beds or pots of sand	Feb-June	GL, NE, MA, SE, FL, NE, SP	# 4 g	Perennial, fast growing, persistent, full sun	Pest plant in many areas, not recommended for any use other than soil stabilisation
June-Sept Dry. cool area Year-Tough SH. No. 1.5 m Draw season, full sun April-Sept Dry. cool area Oct-Nor 1 Dry. cool area D		Seeds	July-Oct	Dry, cool area	Mrch-June	Entire U. S.		Summer ennual, upright, heavy seed producer, full sun	Cultivated extensively for grain, silege, and human consumption
Aug-Oct Dry, cool area Got-Nov; RE, W., SE, To 1.6 a dense clumps RF, Nov. Sept-Nov Dry, cool area Peb-June Entire U. S. To 1 a fast growth, full sun June-Sept Dry, cool area April-July Entire U. S. To 2 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 0 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 0 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 0 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 0 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 0 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 1 a Summer annual, June-Sept Dry, cool area April-July Entire U. S. To 1 a Summer annual, June-Sept Dry, cool area April-Sept Entire U. S. To 1 a Guard perential, June-Sept Dry, cool area April-Sept Entire U. S. To 1 a Guard perential, June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seeds, Juli ann June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 a Guard seed pro- My, PRW Dry, Sept Bry, RW, PRW Dry, Sept Bry, Bry, Bry, Bry, Bry, Bry, Bry, Bry,		Seeds	June-Sept	Dry, cool area	Year-round (MS, FL) April-May (north)	SE, NG, FL, NA, SP, SW	To 1.5 m	Dense perennial, full sun	Cultivated pasture grass
Sept-Nov Dry, cool area Reb-lune Entire U. S. To 1 a Grass, rigid ateas, rigid ateas, full sum June-Sept Dry, cool area April-July Entire U. S. To 2 a Sumer annual, fast growth, full sum June-Sept Dry, cool area April-July Entire U. S. To 1 a Grass, food area July-Oct Dry, cool area April-July Entire U. S. To 1 a Grass, food ateas April-July Entire U. S. To 1 a Grass, food ateas April-July Entire U. S. To 1 a Grass, food ateas April-July Entire U. S. To 1 a Grass, food ateas and food ateas April-July Entire U. S. To 1 a Grass, food ateas and food ateas April-Sept Entire U. S. To 1 a Grass, food ateas and food ateas April-Sept Entire U. S. To 1 a Grass, food ateas food ateas and an ateas, food ateas, food ateas and an ateas, food ateas and an ateas, food ateas, food ateas and an ateas, food ateas, food ateas and an ateas, food ateas and an ateas, food ateas, food ateas and an ateas, food ateas, food ateas, food ateas and an ateas, food ateas and an ateas, food ateas,		Seeds	Aug-Oct	Dry, cool area	Oct-Nov; March-Apr	HE, MA, SE, HE, HP, HP, MRV	To 1.6 m	Warm season, full sun, dense clumps	Tolerates acid soils, seeds have strong dormancy
Sept-Nov Dry, cool area April-July Entire U. S. To 2 m Summer annual, upright, except Me. June-Sept Dry, cool area April-July Entire U. S. To 2 m Summer annual, upright, except Me. July-Oct Dry, cool area April-July Entire U. S. To 0.5 m Saall culmed perennial, and June-Sept Dry, cool area April-July Entire U. S. To 1 m Vigorous summer annual, upright, S. May-July Dry, cool area April-Sept Entire U. S. To 1 m Vigorous summer annual, upright, S. May-Sept FL Dry, cool area April-Sept Entire U. S. To 1.5 m Null annual, in north, hardy, S. May-Sept FL Sept FL Se		Transplants	Oct-March	Hold in wet sand beds or in sand pots	Feb-May	PNV, CA	To 1.5	Perennial, cool sesson grass, rigid stems, full sun	Tolerates saline condi- tions, excellent for sandy beach and dune areas
June-Sept Dry, cool area April-July Entire U. S. To 2 m Summer annual, upright, Full sun Ft. 59 June-Sept Dry, cool area April-July Entire U. S. To 0.5 m Small culmed perential, sun survey My. July-Oct Dry, cool area April-July Entire U. S. To 1 m Vigorous summer sunual, property My. June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 m Tall beary sand about sunual, sunual	11 panic grass (Fanicum dichotomiflorum)	Seeds	Sept-Nov	Dry, cool area	Feb-June	Entire U. S.	70 J	Coarse, summer annual, fast growing, good seed producer, full sun	Tolerates wide range of soil conditions includ- ing wet areas, consi- dered crop pest
June-Sept Dry, cool area April-July Entire U. S. To 0.5 m Small culmed perential, proving a careet Nr, holy or 1 may cool area April-July Entire U. S. To 1 m Vigorous americannul, formal and north, hardy, proving a careet north, hardy, formal and north, hardy, formal and north, hardy, formal and north, hardy, formal careet Nr, Cool area April-Sept Entire U. S. To 1.5 m Mardy, fast growing, accept Nr, cool area April-Sept Entire U. S. To 1.5 m Mardy, fast growing, accept Nr, cool area April-Sept Entire U. S. To 1.5 m Mardy, fast growing, accept Nr, cool area April-Sept Entire U. S. To 1.5 m Mardy, fast growing, accept Nr, cool area April-Sept Entire U. S. To 1.5 m Mardy, fast growing, accept Nr, cool area Mary-Sept Entire U. S. To 0.4 m Perential, prostrate to cerect, full sum May		Seeds	June-Sept	Dry, cool area	April-July	Entire U. S. except M., FL, SP	To 2 .	Summer annual, upright, fast growth, full sun	Cultivated extensively for grain and silage, pre- fers moist soils
July-Oct Dry, cool area April-July Entire U. S. To 1 m Vigorous summer sanual, chapped, Tull sum Dry, cool area Oct-Nov Dastern To 1 m Prematal in south, mary June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 m Tall beavy sanual, abundance of the proving seeds and the proving seeds of the proving seeds of the proving seeds proving proving seeds proving seeds proving proving seeds proving seeds proving seeds proving proving seeds proving proving proving proving seeds proving pr		Seeds	June-Sept	Dry, cool area	April-July	Entire U. S. except MP,	To 0.5	Small culmed perennial, heavy seed producer, full sun	Pest plant in cultivated areas, grows in most soil conditions
May-July Dry, cool area Oct-Nov Eastern To 1 m Perental in south, and U.S. and numl in north, hardy, St. Nry. June-Sept Dry, cool area April-Sept Entire U.S. To 1.5 m Hardy, fast growing, seet, pill ann June-Sept Dry, cool area April-Sept Entire U.S. To 1.5 m Hardy, fast growing, Pill-Sept Entire U.S. To 1.5 m Hardy, fast growing, Pill-Sept Entire U.S. To 1.5 m Hardy, fast growing, Pill-Sept Entire U.S. To 1.5 m Hardy, fast growing, Pill-Sept Entire U.S. To 1.5 m Hardy, fast growing, Pill-Sept Entire U.S. To 0.4 m Hardy, fast growing, Pill-Sept Entire U.S. To 0.4 m Personalal, prostrate to Go except MP, erect, full sun Hay-Sept Entire U.S. To 0.4 m Personalal, prostrate to Go except MP,		Seeds	July-Oct	Dry, cool area	April-July	Entire U. S.	To 1 .	Vigorous summer annual, clumped, full sun	Occurs in many soils, pest in crops, not palatable to browsers
June-Sept Dry, cool area April-Sept Entire U. S. To 1.5 m Tall heavy annual, abun- Ocarcept Pl. July-Oct Dry, cool area April-Sept Entire U. S. To 1.5 m Hardy, fast growing, Pl. 9 except MP, PMP ducer, full sun June-Sept Dry, cool area May-Sept Entire U. S. To 0.4 m Personal, prostrate to Go except MP, Resonal, prostrate to Go except MP, Resonal, prostrate to Go except MP, Resonal Resonance Contract May-Sept Entire U. S. To 0.4 m Personal, prostrate to Go except MP, Resonance Contract May-Sept Entire U. S. To 0.4 m Personal MA error May-Sept Entire U. S. To 0.4 m Personal MA error May-Sept Entire U. S. To 0.4 m Personal MA error MA e		Seeds	May-July	Dry, cool area	Oct-Nov	Eastern U. S. and SP, NP, PNW, CA	To 1 .	Perennial in south, an- nual in north, hardy, forms dense root ays- tem, full sun	Cultivated for winter grating, quick winter cover, and lawns
July-Oct Dry, cool area April-Sept Entire U. S. 70 1.5 m Hardy, fast growing, except MP, error, string seed pro- Hai, PNM dweer, Tull sum June-Sept Dry, cool area May-Sept Entire U. S. 70 0.4 m Perennial, prestrate to Hay-Sept MP, except MP, errect, full sum Hay-Sept MP, except MP, errect, full sum	brid) ³	Seeds	June-Sept	lry, cool area	April-Sept	Entire U. S. except FL	To 1.5 .	Tall heavy annual, abundant seeds, full sun	Occurs in all soils, grown for waterfowl and cattle feed, is sait tolerant to some extent
June-Sept Dry, cool area May-Sept Epitre U. S. 70 0.4 m Paremaial, prestrate to except MP, except MP, errect, full sum		Seeds	July-Oct	Dry, cool area	April-Sept	Entire U. S. except MP, MM, PW	To 1.5 .	Hardy, fast growing, erect, strong seed pro- ducer, full sun	Planted for pastures and hay, pest in cultivated areas
		Seeds	June-Sept	Dry, cool area	May-Sept	Entire U. S. except NP.		Perennial, prostrate to erect, full sun	Good seed producer, pre- fers wet to moist soils

Table 2 (Continued)

	(Alphabetized by Common Hame)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Pange	Meture	Growth Habits	Remarks
Seed	Grasses (Continued) Large crabgrass (Digitaria sanguinalis)	Seeds	'une-Sept	Dry, cool area	April-Sept	Entire U. S. except NP	To 0.3 m	Creeping annual, fast growing, full sun	Occurs in all soils, pest in cultivated areas, im-
Seed	Little hairgrass, (Aira praecox)	Seeds	June-Aug	Dry, cool area	April-June	MA, PMM, CA		Annual, tuffed culms,	Prefers sandy, dry coastal soils
Seeds June-Aug Dry, cool area Mar-June Matter U. S. 70 1.3 m Charled permittal, print Property	Onts (Avena satira)3	Seeds	My-June	Dry, cool area	Sept-Oct		-	Cool season annual, agro- nomic cereal crop, full sun	Occurs in almost all soil conditions, needs well- prepared seed bed
	Orchardgrass (Inctylis glomerate) ¹⁺³	Seeds	June-Aug	Dry, cool area	Mar-Sept	Entire U. S.	To 1.3 .	Clumped, perennial, hardy, full sun to shade	Prefers well-drained soils and does well in many soils, cultivated for grazing, hay, and silage
	Panic gress (Panicum clandestinum)	Seeds	June-Aug	Dry, cool area	Mar-June	Eastern and mid-U. S.	To 1.3 m	Dense clumped perennials, strong rhizomes, full sun	Prefers moist sandy soil
Seeds May-July Dry, cool area Sept-Mor Si, Mo. Si, No. 1 m Macky, dense root system, cool area Sept-Mor Dry, cool area Mar-June Entire U. S. 70 1 m Tall peremial, full sum Cool area Seeds	Pearl millet (Pennisetum daucum)	Seeds	Sept-Oct	Dry, cool area	Mar-June	MA, SE, SP,	To 2 .	Robust, summer annual, heavy seed producer, full sun	Cultivated for grain and silage, prefers moist soil but tolerates drought
Seeds Supt-Oct Dry, cool area Apr-June Entire U. S. To 1.3 m Tall perennial, full sum of steeps of seeds Sept-Oct Dry, cool area Nar-June Entire U. S. To 1.3 m Perennial, forger numble, erect Pry, cool area Nar-June Entire U. S. To 1.3 m Perennial, forger numble, erect Pry, cool area Nar-June Entire U. S. To 1.3 m Perennial, foll sum out, full	Perennial ryegras, 3 (Lolium perenne), 3	Seeds	May July	Dry, cool area	Sept-Nov	SE, NS. SP,	To 1 m	Hardy, dense root system, full sun	8
Seeds Sept-Oct Dry, cool area Mar-June Entire U. S. To 1.3 m Summar annual, erect Frost stock stock hardy, full sum of and beds or pots Mar-June Entire U. S. To 1.3 m Perennial, long running Person stock hardy, full sum of and beds or pots Mar-June Entire U. S. To 1.3 m Perennial, long running Person stock hardy, full sum of sade to full sum out, ful	Prairie cordgrass (Sparting pettinata)1,2,3	Seeds	July-Oct	Dry, cool area	Apr-June	Entire U. S. except SE, FL, MS, CA		Tall perennial, full sun	Occurs in wet, coastal areas
Har-June Entire U. S. To 1.3 m Perennial, long renning Perennial, robust, summer Perennial, robust, robust, robust, robust, summer Perennial, robust, robust	Proso millet (Panicum millaceum)	Seeds	Sept-Oct	Dry, cool area	Mer-June	A. SP	To 1.3 m	Summer annual, erect stems, full sun	Produces seeds in 4 months after planting, good food value, cultivated for grain
Seeds May-Aug Dry, cool area Mar-May Entire U. S. To 1 m Hardy robust creeping Courty Seeds Aug-Oct Dry, cool area Mar-June Entire U. S. To 2 m Tall hardy stolonifer- Courty Tall h	Quachgrass (Agrogron repens)	Root stock	Sep-Mar	In sand beds or pots of sand	Mar-June	Entire U. S.		Perennial, long running root stock, hardy, full sun	Pest plant, exotic
Aug-Oct Dry, cool area Apr-June Entire U. S. To 1 m Tall hardy stolonifer- Ous. To 2 m Tall hardy stolonifer- Ous. To 2 m Tall party stolonifer- Ous. To 2 m Tall party stolonifer- Ous. To 2 m Tall growth, full sun feat g	Red feature rubra)1,3	Seeds	May-Aug (north)	Dry, cool area	Mar-May (north)	Entire U. S. except FL, SP, MS, SE		Hardy robust creeping grass forms a dense sod, shade to full sun	Cultivated extensively in mixed stands for pas- tures, lawns, and rights-of-ways
Seeds Jum-Aug Dry, cool area Mar-June Entire U. S. To 2 m fast growth, Phila sun fast growth, Phila sun fast growth, Phila sun Seeds Jul-Oct Dry, cool area Apr-Jul Entire U. S. To 1.3 m Entire U. S.	Redtop (Agrostis alba)1,3	Seeds	Aug-Oct	Dry, cool area	Apr-June	Entire U. S.		Tall hardy, stolonifer- ous, full sum	Cultivated for silage, hay, and grazing
Seeds Jul-Oct Dry. cool area Apr-June SF, MA, CA, To l m Robust, summer perennial, Ou Sy Apr-June SF, MA, CA, To l m Robust, summer perennial, Ou seeds Aug-Oct Dry. cool area Apr-Jul Entire U. S. To l.3 m Dense cultar, perennial, Phyliam match branched, shade to match branched, shade to Apr-Jul Brite U. S. To l.3 m March cool seed and shade to Apr-May Apr-	Reed canary grass (Phalarie arundinaces)1+3	Seeds	Jun-Aug	Dry, cool area	Mar-June		To 2 m	Summer perennial, robust, fast growth, full sun	Prefers moist soil, but grows anywhere, cultiva- ted on sewage areas and for pastures, good seed producer
seeds Aug-Oct Dry. cool area Apr-Jul Entire U. S. To 1.3 Dense culms, perennial, Pr much branched, shade to rull sum branched, shade to rull sum hard cool area (Sep-Nov Entire U. S. To 1 m Hardy cool season annual, Ou seeds Apr-Aug Apr-Aug (north)	Rescue gress (Bromus catherticus)1.3	Seeds	Jul-Oct	Dry, cool area	Apr-June	SE, M. CA.	To 1 m	Robust, summer perennial, full sum	S
Seeds May-Jul Dry.cool area Sep-Nov Entire U. S. To l m Hardy cool season annual, Ou	(Leersia oryzoides)	Seeds	Aug-Oct	Dry, cool area	Apr-Jul	Entire U. S.		Dense culms, perennial, much branched, shade to full sun	2
	(Secule cereale)	Speeds .	May-Jul	Dry, cool area	Sep-Nov (south) Apr-May (north)	Entire U. S.		Hardy cool season annual, high seed producer, full sun	8

Table 2 (Continued)

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meture	Growth Habits	Renarks
Grases (Continued) Saltgrass (Distinuis spicata)1,2,3	Transplants, seeds	Sep-May Jul-Sep	In sand beds or in pots of sand	Mar-June	Entire U. S. in saline	To 0.3	Dense perennial, hardy, many rhizomes, good	Prefers moist, coastal areas, occurs in salt
					cept PMW,			dunes
Saltmendow cordgrass (Spartine patens)1,2,3	Transplants, seedlings	Year-round (south)	In wet sand beds or in sand pots	Peb-Jun	NE, MA, SE, FL, MS, SP	To 1 a	Densely rooted, summer perennial, spreads best from tillers	occurs in flooded saline areas to dry sand dunes, occurs frequently, and is successfully planted on dredged material.
(Sporobolus cryptendrus)	Seeds	Sep-Oct	Dry, cool area	Apr-Jul	Entire U. S.	To 1 m	Erect perennial, hardy, slow growing, full sun	Prefers sandy soils, grows on prairie areas
Sea oats (<u>Uniola paniculata</u>) ^{1,2,3}	Transplants, seeds	Sep-Mar (trans) Aug-Oct (seeds)	In vet sand beds dry, cool area	Mar-June	M. SE. PL.	To 2 m	Robust perennial, dense roots, full sun	Prefers sandy, coastal areas, excellent dune stabilizer, tolerates salt spray
Seasbore bluegrass (Pos secanths)1	Transplants	Sep-Mr.	In wet sand beds or pots of sand	Mar-June	PW, CA	To 0.4 m	Creeping rhizomous peren- nial with upright culms, full sum	Prefers coastal sand dunes
Seashore paspalum (Paspalum vaginatum)	Transplants	Sept-Mar	In wet sand beds or in sand pots	Sep-June	SE, FL, MC	To 0.4 m	Dense perennial, fast growing, full sun	Tolerates flooding and salt spray, occurs on dredged material islands in dense stands
Shoreduze panic grass (Panicum smarulum) ¹	Seeds	Sept-Oct	Dry, cool area	Mar-May	NE, MA, PL,	To 2 H	Upright, coarse, peren- nial, fast growing, full sun	Prefers sandy beach soils, tolerates salt sprays, occurs on dredged mate- rial islands
Sixweeks feacue (Feature octoflore)	Seeds	My June	Dry, cool area	Mar-May	Entire U. S.	To 0.3 m	Annual, fast seed pro- ducer, full sun or shade	Cultivated as forage and hay crops
Smooth craburass (Digitaria ischaemus)	Seeds	Jun-Sept	Dry, cool area	Apr-Sept	Entire U. S. except SW	To 0.3 m	Creeping, fast growing, annual, full sun	Occurs in many soil types, a pest in cultivated fields and gardens
Sorghus vulgare) ³	Seeds	July-Oct	Dry, cool area	Apr-Sept	Entire U. S.	To 1.5 m	Upright, summer annual, heavy seed producer, full sun	Cultivated extensively as grain and silage crop, tolerates wide range of soils
Sudan grass (Sorghum sudanese)	Seeds	July-Oct	Dry, cool area	Apr-July	Entire U. S. except NP, NE, PNV	To 3 m	Wandering, upright, an- nual, hardy, fast growing, full sun	Cultivated for hay and silage, tolerates wide range of soils
(Panicum virgatum)1,3	Seeds	June-Sept	Dry, cool area	Apr-Sept	Entire U. S. except NP, PNW, CA	To 2 m	Summer perennial, fast growing, hardy, full sun	Prefers moist soils, grows at water's edge, toler- ant of salt spray
(Pestuca arundinacea) 1,2,3	Seeds	Apr-June (south)	Dry, cool area	Oct-Nov (S)	Eastern U. S. ex- cept FL; MP, PMW	To 1.5 m	Cool weather grass in south, summer grass in north, full sun	Cultivated for pastures
(Panicum texanum)	Seeds	Jul-Oct	Dry, cool area	Mar-Aug	MA, SE, FL,	To 2 m	Summer annual with spreading stems, full sun	Fast growing, considered crop weed, grows well on sand dunes
Timothy (Phleus Pratense)1.2.3	Seeds	Jul-Sept	Dry, cool area	Apr-June	Entire U. S. except SP. FL. MS	To 1 m	Summer perennial, fast growing, erect, full	Cultivated extensively in north for hay

Table 2 (Continued)

(Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Height Height	Growth Habits	Remarks
Grasses (Continued)	The same of	3000 1890	Control of the Contro					
Torpedo grass (Panicus repens)	Transplants	Sep-Mar	In wet soil beds or pots of sand	Sept-June	FI. MS, SP	To 0.1	Stout perennials, many rhizomes, dense cover, full sun	Sea beaches, prefers sandy moist soils, tolerates sait spray
Vasoy grass (Paspalum urvilles)	Seeds	July-Sept	Dry, cool area	Apr-June	FI, SE, NA, NS, SP, CA	To 2 a	Clumped, stout perennial, erect, hardy, full sun	Prefers moist soil, pasture grass, road- side cover
Virginia dropseed (Sporobolus virginicus)	Seeds	Jun-Sept	Dry, cool area	Apr-June	M, 71, NS	70 O.4 m	Perennial, branching rhizomes, erect culms, full sun	Occurs on sandy and muddy seasbores, tolerates salt spray
Walter's millet (Ethinochios waiteri)1,3	Seeds	July-Sept	Dry, cool area	April-Sept	SP, MS, FL, SE, MA, NE, GL	70 J	Stiff stems, abundant seeds, annual, full sun	Occurs is all soils, cultivated for water- foul food, prefers wet soils
Wheat (Triticum mestivum) ³	Seeds	May-July	Dry, cool area	Oct-Nov (winter) Mar-May (spring)	Entire U. S.	٠ ا ١ و ا	Winter annual, good seed producer, hardy, full sun	Cultivated extensively, tolerates cold, good cover and food crop
Wild rye (Elymus virginicus)	Seeds	May-July	Dry, cool area	Sept-June	Entire U. S. except CA	To 1.2	Perennial, tufted erect culms heavy seeds, full sun	Prefers moist soils, good seed producer, tolerates salt spray somewhat
Wooly panic grass (Panicum lanuginosum)	Seeds	July-Sept	Dry, cool area	April-June	MA, SE, FL,	To 0.7	Perennial, clumped, spreading shade and sun	Prefers moist soils, grows in woods and open areas, occurs on sea coast
Yellow bristlegrass (Setaria lutescens) Herba	Seeds	July-Oct	Dry, cool area	April-July	Entire U. S. except SW, CA	70 1 .	Summer annual, good seed producer, full sun	Occurs in many soil con- ditions, pest in crops, not palatable to browsers
Alfaifa (Medicale sative) ³	Seeds (Inoculated)	July-Sept	Dry, cool area	Aug-Sept or Feb-April	Entire U. S.	To 0.5 m	Perennial, much-branched legume, full sun	Requires good seedbed preparation, occurs on most soils, prefers rich, moist areas
Alsike clover (Trifolium hybridum)1,3	Seeds (Inoculated)	Mar-Apr (south) June-Sept (north)	Dry, cool area	Nov-Feb (south)	Entire U. S.	To 0.5 m	Perennial, ascending branches full sun	Prefers moist, acidic soils, cultivated in areas other clays won't grow
(Polygonus sagittatum)	Transplants, seeds	July-Sept	Dry, cool area	Mar-June	Eastern and mid-U. S.	To 0.6 m	Viney, annual, weak stemmed, spiney, full sun	Prefers moist soils
Beach pes (<u>Lathyrus laponicus</u>)	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-June	Entire coastal U. S.	To 0.3 m	Perennial viney plant, hardy, full sun	Prefers sandy moist soils, occurs on coastal beaches, dunes, and islands
Beach strawberry (Fragaria chiloensis)	Transplants	Sept-Mar	In sand beds or in pots of sand	Mar-June	PWV, SW	To 0.2 m	Perennial plants with runners full sun to shade	Prefers moist sandy soils
Big filaree (Erodium botrys)	Seeds	Apr-July	Dry, cool area	Sept-Nov	5	To 0.2 m	Winter annual, full sun	Pest plant, occurs in most well-drained soils
Bird's foot trefoil (Lotus corniculatus)	Seeds (inoculated)	June-Sept	Dry, cool area	Mar-June	NE, MA	To 0.6 m	long rooted perennial, full sun	Pest plant, occurs in most soils, common on coasts
Bit ersweet nightshade (Solanum dulcamara)	Seeds	Nay-Sept	Dry, cool area	April-May	NE, MA, NP	To 2.6 B	Perennial, climbing stem, full sum to shade	Prefers moist soils and in woods, but grows in open areas
Black medic (Medicago lupulina)1,3	Seeds (inoculated)	Mar-June (south) June-Aug (north)	Dry, cool area	Nov-Feb (south)	Entire U. S. To 0.3 m	To 0.3 m	Annual, shallow taproot, full sum	Prefers well-drained or dry soils, dormant in south in the summer

Table 2 (Continued)

(Alphabetized by Common Name)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meture	Growth Habits	Remarks
Herbs (Continued)								
Black nightshade (Solams nigrus)	Seeds	July-Oct	Dry. cool area	Apr-Jun	Eastern U. S.	To 1 =	Erect, annual, hairy, hardy, full sun	Pest in cultivated areas, occurs in most soils
Blackseed plantain (Plantago rugelii)	Seeds	June-Sept	Dry, cool area	Apr-Jun	Eastern and mid U. S.	To 1 .	Perennial, rootstock stout, thick, erect, hardy, full sun or shade	Pest plant, occurs in woods, fields, and waste areas
Mottlebrush (Plentago aremaria)	Seeds	May-Oct	Dry, cool area	Apr-Jun	Eastern U. S.	70 J .	Annual, many branched stem, full sun	Prefers well-drained open areas
Prected plantain (Plantago aristata)	Seeds	Jun-Oct	Dry, cool area	Apr-Jun	Entire U. S. except MM, PMM, CA, SW	To 0.5 .	Perennial, stout root- stock, erect, full sun	Prefers dry open areas
Broadlesf plantain, (Plantago major)	Seeds	May-Sept	Dry, cool area	Apr-June	Intire U. S.	To 0.2	Perennial, rootstock, short, thick, erect, full sum	Occurs in most soils, in waste places
Buckthorn plantain (Plantago lanceolata)	Seeds	Apr-Nov	Dry, cool area	Mer-June	Eastern U. S.	To 0.3	Perennial, pubescent, short rootstock, full sun	In fields and waste places
Bush lupine (Lupinus arboreus)	Seeds	June-Sept	Dry, cool area soul in hot H20 before planting	Apt-June	MW, G	To 0.6	Perennial, many branched, shrubby, full sun	In dry, open areas
Calandrinia maritima)	Seeds	July-Sept	Dry, cool area	Mar-June	5	,		In dry scrub areas, sandy coastal beaches
Camphorveed (Heterotheca subaxillaris)	Seeds	July-Sept	Dry, cool area	Apr-June	HA, SE, FL, HG, SH, SP, HP	- 1 g	Biennial, many branched, many flowered, full sun	Prefers dry, sandy soils, sea beaches, occurs com- monly on dredged mate- rial islands
Chufa (Crerus esculentus)1,2,3	Tubers, seeds	July-Oct	Moist cold roam (tubers) Dry, cool area (seeds)	Mr-June	Entire U. S.	To 0.6 .	Perennial sedge, robust, fast growing, numerous edible tubers full sun	Prefers wet to moist soils, prime wildlife food, extremely prolific
Coast deervetch (Lotus formosissimus)	Seeds (inoculated)	June-Sept	Dry, cool area	Apr-June	PHV, CA	To 0.5 .	Perennial, long roots, slender stems, full sun	Prefers dry, well-drained soils
Common chickweed (Stellaris media)	Seeds	Dec-Peb	Dry, cool area	Oct-Dec	Entire U. S.	To 0.5 .	Meak, tufted annual, much branched, full sun	Pest plant in all agronomic situations
Common filaree (Brodium cicutarium)	Seeds	Apr-July	Dry, cool area	Sept-Nov	SP, GL, PW, CA	To 0.2	Winter annual, taproots, many branched, full sun	Pest plant, occurs in most soils, prefers well- drained soils
Common lembequarters (Chemopodium album)	Seeds	July-Oct	Dry, cool area	April-June	Entire U. S.	To 1.3 .	Annual, erect, bushy common, shade to full sun	Pest plant, occurs in most soils, occurs on dredged material islands
(Verbascum thapsus)1	Seeds	June-Sept	Dry, cool area	April-June	Entire U. S.	To 2.3 .	Erect, stout, biennial, full sun	Pest plant, occurs in open well-drained areas
Common purslane (Portulaca oleraces)	Seeds	June-Sept	Dry, cool area	April-June	Entire U. S.	To 0.2	Annual, prostrate, free branching, deep roots, full sun	Prefers dry sandy areas
Common ragueed (Ambrosia artisisiifolia)	Seeds	Sept-Nov	Dry, cool area	April-June	Entire U. S.	To 2.3	Annual, shallow roots, robust, common, full sun	Pest plant, occurs in most soils, tolerates sait spray, occurs on dredged material islands
Common spikerush (Kleocharis palustris)	Transplants,	April-Sept	In sand beds (trans.)	April-Sept	Entire U. S. To 1	To 1 .	Perennial, upright,	Occurs in moist soils in interior areas

Mar-Sept Dac-Peb (south) Mar-June Apr-June Apr-June Mar-June Oct-Peb (south) Jan-Apr (north)	Temporary Storage Requirements Planting Periods		Range	Mature	Growth Habits	Remarks
Seeds June-Sept Dry, cool area Mar-Sept (incculated) June-Sept (north) Dry, cool area Dec-Peb (south) Mar-Jul (north) Dry, cool area Apr-June Seeds June-Sept (north) Dry, cool area Apr-June Seeds June-Sept (north) Dry, cool area Apr-June Seeds June-Sept (north) Dry, cool area Apr-June April-June Seeds April-Det Dry, cool area Mar-June Mar-June Seeds June-Sept (north) Dry, cool area Mar-June Mar-June Seeds June-Sept Dry, cool area Mar-June Mar-June Seeds June-Sept Dry, cool area Mar-June June-Sept Dry, cool area Mar-June Seeds June-Sept Dry, cool area Mar-June June-Sept Mar-June June-Sept Dry, cool area Mar-June June-Sept Mar-June June-Sept Dry, cool area Mar-June June-Sept Mar-June June-Seeds June-Sept Mar-June June-Seeds June-Seeds June-Sept Mar-June June-Seeds June-Sept Mar-June June-Seeds Mar-June June-Seeds June-Seeds June-Seeds June-Seeds June-			Entire U. S.	To 2 m	Perennial, upright, tri- angular stems, full sun	Occurs in moist soils in fresh and brackish ar-
Seeds June-Sept Dry, cool sres Nar-Sept						eas, good vildlife food
Seeds Aug-Oct Dry, cool area bac-law (south) Seeds Aug-Oct Dry, cool area Apr-June Seeds June-Sept (north) Transplants, Mar-Juy (reseds) Seeds Apr-June Seeds Apr-June Seeds Apr-June Jac-Sept Dry, cool area Apr-June Jac-Sept Dry, cool area Apr-June May-Sept Dry, cool area Mar-June Seeds April-Oct Dry, cool area Bor-Mar-June June-Sept Dry, cool area Bor-Mar-June May-Sept Dry, cool area Mar-June Seeds June-Sept Dry, cool area Mar-June May-Sept Dry, cool area Mar-June May-Sept Dry, cool area Mar-June May-Sept Dry, cool area Mar-June May-May (south) Seeds June-Sept Dry, cool area Mar-June May-May (south) Seeds June-Sept Dry, cool area Mar-June May-May (south) Seeds June-Sept Dry, cool area Mar-June May-May (south) May-Sept Seeds May-May (south) May-Sept Seeds June-June May-Sept May-Sept May-Sept May-May (south) May-Sept Seeds June-June May-Sept May-Sept May-Sept May-May (south) May-Sept May-Sept May-Sept May-Sept May-June May-Sept May-Sept May-Sept May-Sept May-Sept May-June May-Sept May-Sep			Entire U. S.	To 0.5 m	Summer annual, viney, fast growing, good seed producer, full sun	Cultivated in most soils for human food, hay and forage, especially in the south
Seeds Agr-July Dry, cool area Apr-June Seeds June-Sept Dry, cool area Apr-June Transplants, Mar-Bor (trans) In sand beds seeds June-Sept (seeds) Ary, cool area April-June Seeds April-Sept Dry, cool area Mar-June (incoulated) May-Sept Dry, cool area Mar-June Seeds Juny-Oct Dry, cool area Mar-June Transplants June-Sept Dry, cool area Mar-June transplants Mar-Apr (south) Dry, cool area Mar-June transplants Mar-Jun (north) Dry, cool area Mar-June transplants June-Sept Dry, cool area Mar-June transplants Mar-Jun (north) Dry, cool area Mar-June dry, cool area Mar-Jun (north) Seeds Jan-Mar (south) Bry, cool area Mar-June dry, cool area Mar-Jun (north) Seeds Jan-Mar (south) Bry, cool area Mar-June Aug-Sept Mar-Jun (north) Mar-June dry, cool area Mar-June Apr-June Aug-Sept Mar-Jun (north) Mar-June Ary, cool area Mar-June Ang-Seeds Jan-Mar (south) Mar-June Ang-Se			Entire U. S.	To 0.5	Strong perennial in south, annual in north, procumbent stems, fast growing	Cultivated on most soils for hay and grazing, and on rights-of-ways
Seeds June-Sept Dry, cool area April-June frausplants, Mar-July Dry, cool area April-June seeds June-Sept (seeds) dry, cool area April-June Seeds April-Sept Dry, cool area Mor-June (incoulated) April-Oct Dry, cool area Mor-June Seeds June-Sept Dry, cool area Mor-June Seeds June-Sept Dry, cool area Mar-June transplants June-Sept Dry, cool area Mar-June (incoulated) Mar-June Dry, cool area Mar-June Aug-Mor (south) Dry, cool area Mar-June (incoulated) Apr-Jul (north) Dry, cool area Mar-June Seeds Jun-Mar (south) Dry, cool area Mar-June (incoulated) Mar-Jun (north) Dry, cool area Mar-June Seeds Jun-Mar (south) Dry, cool area Mar-June Seeds Jun-Mar (south) Dry, cool area Mar-June Seeds Jun-Mar (south) Dry, cool area Mar-June Mar-June Jun-Mar (south) Dry, cool area Mar-June Dry, cool area Dry, cool area Mar-June Dry, cool area				To 1 m	Many branched, stout an- nual, robust, full sum	Occurs in waste areas and dry soils, pest plant
Seeds June-Sept Dry. cool area April-June Transplants Berds June-Sept (seeds) dry. cool area Bor-May Seeds April-Sept Dry. cool area Bor-May (inculated) May-Sept Dry. cool area Bor-June Transplants June-Sept Dry. cool area Bor-June Transplants June-Sept Dry. cool area Mar-June Transplants June-Sept Dry. cool area Mar-June Transplants Mar-Apr (south) Dry. cool area Mar-June Seeds June-Sept Dry. cool area Mar-June Transplants Mar-Apr (south) Dry. cool area Mar-June Transplants Mar-Apr (south) Dry. cool area Mar-June Seeds June-Mar (south) Dry. cool area Mar-June Transplants Mar-Apr (south) Dry. cool area Mar-June Seeds June-Mar (south) Dry. cool area Mar-June Mar-Jun (north) Mar-Jun (north) Apr-June Jan-Apr (north) Apr-June Apr-			Entire U. S.	To 1.3 m	Perennial, stout, deep tap root, erect, per- sistent, full sun	Pest plant, occurs in waste areas and crops and in most soils
frausplante, Nar-Sept (seets) dry, cool area (seets June-Sept (seets) dry, cool area (seets June-Sept (seets) dry, cool area (seets dry, cool area (seeds June-Sept (seets) dry, cool area (seeds Juny-Oct Dry, cool area (seeds Juny-Oct Dry, cool area (seeds June-Sept Dry, cool area (seeds June-June Seeds June-Mar (south) Dry, cool area (seeds June-June Seeds Jun-Mar (south) Dry, cool area (seeds Juny-Mar (south) Dry, cool area (seeds Juny-Ma				To 0.5 m	Perennial, long tap roots, full sun	Occurs waste areas, dry soils
Seeds April-Sept Dry, cool area Nov-May 1)1-3 Seeds May-Sept Dry, cool area Nex-June (incoulated) April-Oct Dry, cool area Nex-June Transplants June-Sept Dry, cool area Mar-June transplants June-Sept Dry, cool area Mar-June (incoulated) Mar-Apr (south) Dry, cool area Mar-June transplants Aug-Nov Dry, cool area Mar-June (incoulated) Apr-Jul (north) Dry, cool area Mar-June Seeds Aug-Nov Dry, cool area Mar-June Mar-June Har-June Seeds Jan-Mar (south) Dry, cool area Mar-June Aug-Nov Dry, cool area Mar-June Aug-Nov Dry, cool area Mar-June Aug-Seeds Jan-Mar (south) Dry, cool area Mar-June Seeds Jan-Mar (south) Dry, cool area Mar-June Aug-Sept Aug-Nov Dry, cool area Mar-June Aug-Sept Aug-Nov Dry, cool area Mar-June Area Jan-Mar (south) Area Jan-Mar (south) Seeds Jan-Mar (south) Area Area Area Area Area Area	res		Entire U. S. except SW	To 1 m	Perennial, tiny stems, turf-like, full sun	Occurs in moist soils in fresh, brackish areas
Jacobs May-Sept Dry. cool area Peb-June Jacobs April-Oct Dry. cool area Mar-June Seeds June-Sept Dry. cool area Mar-June Seeds June-Sept Dry. cool area Mar-June Transplants Mar-Apr (south) Dry. cool area Mar-June Seeds Mar-Apr (south) Dry. cool area Mar-June Seeds Aug-Nov Dry. cool area Mar-June Seeds Jan-Mar (south) Dry. cool area Mar-June Seeds Jan-Mar (south) Dry. cool area Mar-June Seeds Jan-Mar (south) Dry. cool area Mar-June Jan-Apr (north) May-Sept Remove pulpy cost Apr-June Jan-Apr (north) May-Sept Apr-June Jan-Apr (north) May-Sept Apr-June Jan-Apr (north) Apr-June				To 0.3 m	Annual, tuffed, ascending stems, full sun	Occurs in most soils, vaste places and fields, prefers well-drained areas
Seeds April-Oct Dry. cool area Mar-June Seeds Juny-Oct Dry. cool area Apr-June Bhisomes, June-Sept Dry. cool area Mar-June transplants June-Sept Dry. cool area Mar-June transplants Mar-Apr (south) Dry. cool area Mar-June (inoculated) Apr-Jul (north) Dry. cool area Mar-June Seeds Aug-Nov Dry. cool area Mar-June Mar-June Mar-Jun (north) Dry. cool area Mar-June Jabr-Apr (north) Mar-Jun (north) Jabr-Apr (north) Jabr-June			ME, MA, MRV, GL, PMV	To 2.3 m	Perennial, winey plant, forms mets, full sum to shade	Occurs in most soils, very slow growing
Seeds June-Sept Dry, cool area Apr-June Rhicoses, June-Sept Dry, cool area Mar-June transplants June-Sept Dry, cool area Mar-June fransplants Apr-Jul (north) Dry, cool area Mar-June (inoculated) Apr-Jul (north) Dry, cool area Mar-June Seeds Aug-Nov Dry, cool area Mar-June Mar-Jun (north) Dry, cool area Mar-June Jab-Apr (north) Mar-Jun (north) Jab-Apr (north) Jap-Bar (south) Jap-June dry, cool area Apr-June Jap-Seeds Mar-Jun (north) Apr-June dry, cool area Apr-June			Eastern and mid U. S.	To 1 .	Perennial, long stout rootstock, erect, full sun	Prefers dry soils
diametrie) Seeds June-Sept Dry, cool area Mar-June wiltum **ransplants June-Sept Dry, cool area Mar-June th **ransplants **seria **seria **seria **inculated **seria **seria **seria **seria **seria **seria **seria **seria **seria			except PMW, CA	To 0.5 m	Annual, stout, erect, persistent, full sun	Pest plant, prefers moist soil, tolerates salt spray, common on coasts
transplants June-Sept Dry, cool area Mar-June transplants transplants (incculated) Mar-Jul (north) Dry, cool area Mor-Feb (south) Mar-June Mag-Mor Dry, cool area Mar-June Mar-June (incculated) Mar-Jun (north) Dry, cool area Mar-June (incculated) Mar-Jun (north) Mar-Jun			Entire U. S.	To 1 m	Annual, scruffy, erect, branched, full sun	Pest plant, occurs in most soils, in waste places
Seeds Mar-Apr (south) Dry, cool area Mov-Feb (south)			Entire U. S.	To 2 m	Perennial, stout, sharp stemtips, persistent, full sun	Prefers moist soils, pest in low ground pastures, extremely hardy
Seeds Aug-Nov Dry, cool area Mar-June			Entire U. S.	To 1 .	Annual or biennial, viney, weak stemmed, fast growing, full sun	Cultivated for forage, occurs in most soils, excellent erosion control
Seeds Jan-Mar (south) Dry, cool area Oct-Peb (south) E			MS.	To 4 m	Annual legume, widely branched, robust, full sun	Occurs in most soils, pest in soybean fields
Seeds May-Sept Remove pulpy cost. Apr-June E dry, cool area			Entire U. S.	To 0.3 m	Winter annual, low, forms carpet, procumbent, full sun	Occurs on poor dry soils, excellent nitrogen fixing legume, crowds out grasses
		ω	Eastern U. S. and SP	To 1.3 m	Perennial, erect, spiny, branched, full sun	Occurs in most dry soils, pest plant in agricul- tural situations

(Sheet 7 of 22)

Table 2 (Continued)

Species (Alphabetised by Comon Hame)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meight	Growth Habits	Remarks
Herbe (Continued) Horseved (Erlaron casadensis)	1	June-Nov	Dry, cool area	Apr-June	Entire U. S.	To 3.3	Annual, stout, erect, fast growing full sun	Pest plant, occurs on most soils, tolerates sait spray, common on dredeed material
Japanese clorer	Seeds	May-Sept	Dry, cool area	Feb-April	Entire U. S.	To 1 m	Annual, erect, many	islands Cultivated for forage, and
(Lespedene striate)	(inoculated)						branched, full sun	silage, excellent on poor well-drained soils
Jerusales artichoke (Relianthus tuberosus)	i	Sept-Oct	Dry, cool area	Apr-June	Eastern U. S. mid-U. S.	₽ 1	Perennial, fleshy, root- stock, tubers, stout, erect	Prefers moist soil, tubers are edible
Korean clover (Lespedera stipulaces)	Seeds (incculated)	My-Sept	Dry, cool area	Feb-Apr	Entire U. S.	10 1 •	Annual, erect, many branched, full sun	Cultivated for forage, hay, and silage, excel- lent on poor well- drained soils
Ladino clover Seeds (Trifolium repens var. latum) ³ (incculated)	Seeds (incculated)	Mar-Apr (south) Apr-Jul (north)	Dry, cool area	Now-Jan (south) Feb-Mar (north)	Entire U. S.	To 1 .	Perennial, fast growing, fleshy stems, creeping, full sun	Cultivated for forage, hay, and silage, excel- lent on poor, well- drained soils
(Polygonus persicaria)	1	June-Oct	Dry, cool area	Apr-Juse	Entire U. S.	To 0.6 =	Annual, ascending stems, variable branching, full sun	Prefers moist soils, in waste places, pest plant in some areas
Lespalesa striata)	Seeds (incculated)	My-Sept.	Dry, cool area	reb-May	Entire U. S.	To 0.6	Perennial, shrubby, full sun	Cultivated for forage, hay, and silage, high- way rights-of-ways, well-drained soils
Luginae polyphyllus)	apage 6	May-Sept	Dry, cool area soak with hot H20 prior to planting	Apr-June	PIN, CA, SW	To 0.5 m	Perennial, shrubby, full sun	Prefers dry, sandy soils
Malta starthistle (Centaures melitensis)	9	Apr-Sept	Dry, cool area	Feb-Apr	Entire U. S.	To 1.3 m	Annual, such branched, spiny yellow flowers, full sun	Occurs in most soils, waste and cultivated areas, pest plant
(Chemopodium hybridum)	Seeds	Jul-Sept	Dry, cool area	Apr-June	Entire U. S. except Far. CA	To 2.5 m	Annual, erect, bright green, branched, shade to full sum	Occurs in woods and thickets or in open, most soil types
Marsh pes (Lathyrus palustris)	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-June	Entire U. S.	To 1.3 m	Perennial, winey shrub, wery persistent, full sum	Prefers moist areas
(Polygonus hydropiper)	Seeds	Jul-Sept	Dry, cool area	Mar-June	Entire U. S.	To 0.6 =	Annual, erect, reddish green, may be branched, full sun	Occurs in moist waste places, sometimes in standing water
Maximilitan's sunflower (Helianthus maximilliani)	Seeds	Aug-Rov	Dry, cool area	Apr-Jul	SP. NP.	To 2 m	Upright, coarse, stout, annual, full sun	Occurs in most soils, attractive flowers
(Chenopodium ambrosicides)	Transplants, seeds	Aug-Oct	Dry, cool area	Apr-June	Entire U. S.	To 1 m	Annual in north, peren- nial in south, much branched, erect, full sun	Pest plant, occurs in most soils, in cultivated and waste areas
Musk filaree (Erodium moschatum)	Seeds	Peb-July	Dry, cool area	Nov-April	5	To 0.5 m	Winter annual, semierect, full sun	Prefers dry well-drained soils
Marrowleaf vetch (Vicia angustifolia)1,3	Seeds	Feb-Apr (south) Apr-Jun (north)	Dry, cool area	Oct-Dec (south) Feb-May (north)	Entire U. S.	To 1 .	Perennial, viney, trail- ing, spreading, full	Cultivated for pastures, hay, and silage

Table 2 (Continued)

	(Alphabetized by Common Name)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meture	Growth Habits	Rearts
	Herbs (Continued) Modding smartweed [Polysonum lambifolium]	Seeds	June-Sept	Dry, cool area	March-June	Entire U. S.	10 1	Annual, much branched, nodes swollen, and	Occurs in most soils and
								seed producer, full sun	
	(Operus filiculais)	Corns, seeds	June-Aug	Dry, cool area	March-June	IP, IP, SP,	To 0.5 .	Perennial, hard oblong corms, ascending, full sun	Occurs is dry fields and on bills
Seed Mag-Cit Dry, cool area, coad Mpril-June Drift Seed Mag-Cit Dry, cool area, coad Mpril-June Coad Dry Seed Mag-Cit Dry, cool area, coad Mpril-June Dry, cool area Mpril-June Dry,	(Scirpus olneyi)	Transplants, seeds	Sept-March	In sand beds or in sand pots	April-June	Entire U. S. coastline	To 2.3	Personial, upright, stem 3-vinged, full sun	Occurs in coastal and fresh moist areas, tolerates salinity
Seeds July-Sept Try, cool area March-June Matern ad To 1.3 Annual is seeding March-June Mar	Orache (Atriblex patula)	Seeds	Aug-Oet	Dry, cool area	April-June	Entire U. S. coastline	2	Annual, widely branched, fruiting bracts, fleshy, full sun	Occurs in saltmendows, along coasts, and inland areas
Seeds Nag-Alag Dry. cool area Nar-June Date Da	Partridge pen (Cassia fasciculata) ^{2,3}	Seeds (Inoculated)	July-Oct	Dry, cool area, soak seeds in water be- fore planting	April-June	Eastern U. S.	To 1 .	Annual, widely brenched, erect, spreading, full sun	In dry soils, common in south in cultivated fields and disturbed areas
Seeds May-Alag D7y, cool area Mat-June CA, FW, HE, Do 1 a Permatical foliation of the state of the	(Polygonum pennsylvanicum)	Seeds	July-Sept	Dry, cool area	March-June	Eastern and mid U. S.	To 1.3 .	Annual, ascending, branched stems, full sun	Occurs on most soils, pre- fers moist soil, a some- times pest plant
Seeds Sept-Oct Dry. cool area Mar-June Entire U.S. To 0.6 a Annual, with serveral purple at a serveral at a	(Rumex occidentalis)	Seeds	Sny-And	Dry, cool area	April-June	CA, PIN, IR,		Perennial, stout stem, erect, unbranched, full sun	
Seeds June-Oct Dry, cool area Apr-June Entire U. S. To 0.6 m Annual, prostrate or sacceding stems, creeping full sum surveying full sum and before the cool area and a seeds July-Sept Dry, cool area March-June Entire U. S. To 0.5 m Permandial procupent branches; spreading, full sum (incorta) (funcuiated) March-July (south) Dry, cool area (incoulated) March-July (south) Dry, cool area (incoulated) March-June (incoulated) Dry, cool area (incoulated) Dry, Dry, Dry, Dry, Dry, Dry, Dry,	(Phrolecce sericane)	Seeds	Sept-Oct	Dry, cool area	Mar-June	Entire U. S. except MP, PMW, MM, SW	103	Robust perennial, with several purple stems, full sun to shade	Occurs in most soil types, and waste places
Seeds June-Oct Dry, cool area har-June RE, GL, MEY, TO 0.6 m Annual, many branched, prostated, spreading, hill ann marks, spreading, hill ann har-June Ratire U. S. To 0.5 m Premaile, spreading, hill ann processes stoot at a class (inoculated) Mar-Jun (north) Mar-Jun (no	Postrate inclueed (Polygonia aviculare)	Seeds	June-Oct	Dry, cool area	Apr-June	Entire U. S.		Annual, prostrate or as- cending stems, creeping full sun	
Seeds Nav-Sept Dry, cool area Narch-July Entire U. S. To 0.5 m Persanicl, procussest notation and persistent, full sun rockroof, full sun derivation (incculated Nav-Jul (south) Dry, cool area (incculated Nay-Jul (south) Dry, cool area (incculated Nay-Sept (south) Dry, cool area (incculated Nay-Sept (south) Dry, cool area (incculated Nay-Sept (south) Dry, cool area (inculated Nay-Sept (south) Dry, cool area (incculated Nay-Sept (south) Dry, cool area (inculated Nay-Sept (south) Dry, cool area (inculated Nay-Sept (south) Dry, cool area (included) Nay-Jul (south) Dry, cool area (included) Nay-Jul (south) Dry, cool area (inculated Nay-Sept (south) Dry, cool area (included) Dry, cool area (in	Prostrate pigweed (Amaranthus blitoides)	Seeds	June-Oct	Dry, cool area	Apr-June	NE, GL, MRV, NP		Annual, many branched, prostrate, spreading, full sun	Prefers well-drained soils, occurs in waste areas, pest plant
Tubers, seeds July-Sept (tubers) Tubers, seeds July-Sept (tubers) Tubers, seeds July-Sept (tubers) Tubers, seeds Mar-May (south) Tubers, seeds July-Sept (south) Tubers, seeds July-Seeds July	(Euphorbia supina)	Seeds	My-Sept	Dry, cool area	Mar-June	Entire U. S.	2	Personial, procumbent branches, stout at rootstock, full sun	Prefers well-drained solls
Seeds Mar-May (north) Dry, cool area Nor-bb (south) Entire U. S. To 1 m Remandal, visor, trail- ing, spreading, full and Mar-Jul (north) Mar-Jul (north) Extire U. S. To 0.6 m Remaindal, visor, trail- ing, spreading, full and beds or Apr-Sep (north) Dry, cool area Mar-Jun (north) Extire U. S. To 0.6 m Remaindal, serential serential and printstent, and printstent and prints	(Sperus rotundus)	Tubers, seeds	July-Sept	Moist, cool area (tubers) dry, cool area (seeds)	March-July	Intire U. S.		Perennial, extremely hardy and persistent, full sun	Pest plant in laws, gardens, fields, pastures
Seeds Mar-Apr (south) Dry, cool area Jan-Mar (south) Earlire U. S. To 0.6 m Personial, ascending them-Jun (sorth) escept Mi Apr-Sep (sorth) Tull our stores, many branched, Tull our stores, many branched, Tull our stores, surper a seeds Sept-Mor Dry, cool area March-June Eatire U. S. To 1 m Gorres, surper and persistent, and persistent, and persistent, and persistent, and persistent, and persistent that the stores, very stores, surper a seed to Annual legume, viant posts of sand for April-June ME. Ma. SE, To 2 m Annual legume, viant posts of sand for April-June ME. Ma. SE, To 2 m Annual legume, viant posts of sand for April-June ME. Ma. SE, To 2 m Personial, erset, videly surpredicts seed bead, Tull surpredicts and surpredicts seed bead.	Purple vetch (Vicia mericanus)	Seeds (inoculated)	Mar-May (south) May-Jul (north)	Dry, cool area	Nov-Feb (south) Mar-May (north)			Perennial, viney, trail- ing, spreading, full sun	Cultivated for pastures, hay, and silage
Seeds June-Oct Dry, cool area March-June Entire U. S. To 1 m Coarse, summer annual, deep red taproce, very hardy, and persistent, shade to full sum. Seeds Sept-Mov Dry, cool area Mar-July SE, MS To k m Annual legame, visey atems, full sum and beds or April-June ME, MA, SE, To 2 m Personial, erect, videly pots of sand CA April-June CA Sept-April In sand beds or April-June CA To 2 m Personial, erect, videly full sum	(Irifolium pratense)1,3	Seeds (inoculated	Mar-Apr (south) Apr-Sep (north)	Dry, cool area	Jan-Mar (south) Mar-Jun (north)	Entire U. S. except Ma	To 0.6	Persmial, seending stess, any branched, full sun	Cultivated as forage and hay crops, soil conser- vation areas
Seeds Sept-Nov Dry, cool area Mar-July SE, MS To & m Annual legume, viney atom, full sun Roct stock Sept-April In sand beds or April-June ME, MA, SE, To 2 m Perennial, erect, videly pots of sand April-June CA Tull sun Prevaling seed bead, full sun	Redroot pigueed (Amaranthus retroflexus)	Seeds	June-Oct	Dry, cool area	March-June	Entire U. S.		Coerse, summer annual, deep red taproot, very hardy, and persistent, shade to full sum	Occurs on most soil types, pest plant in agronmic and feedlot situations
Root stock Sept-April In sand beds or April-June NE, MA, SE, To 2 a Spreadial, erect, widely CA apreading seed head, pots of sand CA Tull sun full sun	Reseeding soybean (Glycine ussuriensis)	Seeds	Sept-Nov	Dry, cool area	Mer-July	SE, MS	To 1 .	Annual legume, viney stems, full sun	Cultivated as waterford food, occurs in most soils
	(Scirpus fluviatilis)	Root stock	Sept-April	In sand beds or pots of sand	April-June	NE, MA, SE,	To 2 m	Perennial, erect, widely spreading seed head, full sun	Occurs in moist areas and interior U. S.

Table 2 (Continue

(Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Flanting Periods	Range	Metare	Growth Mabits	Reserts
Nerbs (Continued) Saltmarsh bulrush (Scirpus robustus)	Root stock	Sept-March	In sand beds or pots of sand	March-June	MS, SP, CA.	To 2 .	Perennial, spiney seed, triangular stems, full sun	Prefers marshes, occurs on dredged material
(Salsole kali) ²	Transplants	Sept-March	In sand beds or in pots of sand	March-June	NE, MA, SE, FL	To 0.6	Annual, spiny, such branched, gray leaves, full sun	Prefers constal moist area, tolerates brackish soils
See blite (Succh meritian)	Seeds	July-Sept	Dry, cool area	March-June	Entire U. S. in salt marshes	70 1 e	Annual, much branched, full sun	Prefers constal moist areas, tolerates salt spray
Sea ox-eye (Borrichia frutescens)	Seeds, transplants	July-Sept (seeds) Sept-March (trans.)	Dry, cool area (seeds) B&B or potted (trans.)	7eb-May	Eastern and southern U. S. coasts	To 0.5 .	Shrubby, fleshy, gray foliage, full sun	Occurs in sandy, costal areas, tolerates salinity
Seashore lupine (Lupinus littoralis)	Seeds	May-Sept	Dry, cool area, soak in H20 before planting	March-June	PW, CA	To 0.5 m	Perennial, scrubby, full sun	Prefers sandy beaches and
(Ruser maritime)	Seeds	July-Oct	Dry, cool area	April-June	Entire U. S. except SE, FL, MS	To 0.1 m	Perennial, deep roots, erect, fast growing, full sun	Prefers moist sandy areas, tolerates sait spray
Seaside goldenrod (Solidago sempervirens)	Seeds	Aug-Dec	Dry, cool area	April-June	Eastern and southern U. S. coasts	To 2.6 .	Perennial, stout, erect, very leafy, large flower, full sun	Occurs on coasts and dredged material islands
Seaside plantain (Plantago maritima)	Transplants, seeds	Mar-Oct (trans) Jun-Sept (seeds)	In sand beds or pots, dry, cool area	March-June	Entire coastal U. S.	To 0.2	Annual and perennial, fleshy rootstock and stems, full sun	Prefers salt marshes and seasbores, tolerates salinity
Serice lespedes (Lespedese cunests)	Seeds	Sept-Dec	Dry, cool area	March June	FL, MP, MA, SE, MRV, SP, MS	To 1 =	Woody perennial, dense fine foliage, good seed production, full sun	Occurs is moist soils, used on rights-of-ways, in pastures, bay fields, and conservation projects
Sheep sorrel (Rusex acetosella)	Seeds	May-June	Dry, cool area	Feb-April	Entire U. S.	To 0.3 m	Perennial, basal rosette, full sum	Grows in infertile acid soils, will die in fertile soils
Showy tick-trefoil (Desmodium canadense)	Seeds (inoculated)	July-Sept	Dry, cool area	April-June	Rastern U. S.	To 1.6 m	Perennial, erect, much branched, pubescent, shade or sun	Prefers rich soils, grows in woods or open areas
Silverleaf croton (Croton punctatus)	Seeds	Aug-Oct	Dry, cool area	April-June	PL, SE, MS	10 1 m	Annual, many brunched, silver leaves, full sun	Occurs in coastal soils, tolerates salt spray, tolerates drought
Southern bulrush (Scirpus californicus)	Root stock	Sept-March	In sand beds or pots of sand	March-June	SE, MS, FL,	30 t	Perennial, triangular stems, upright, droopy spikelets, full sun	Occurs in coastal moist area, tolerates brack- ish soils
Southern ragweed (Ambrosia bidentata)	Seeds	July-Oct	Dry, cool area	April-June	SE. MS. SP	70 1 m	Annual, hirsute, many branched, full sun	Occurs in dry upland soils, pest plant, occurs in waste areas
Soybean (Glygine max) 1,2,3	Seeds (inoculated)	Sept-Oct	Dry, cool area	April-July	Entire U. S.	To 0.6 m	Annual, fast growing, high seed production, full sun	Cultivated extensively for beans, excellent vild- life food
Spotted burclover (Medicago arabica)	Seeds (inoculated)	Feb-April (south) April-July (north)	Dry, cool area	Nov-Jen (south) Feb-May (north)	Entire U. S.	To 0.5 m	Annual, spreading, stout, spiny seeds, full sun	In poor, dry soils
Spotted spurge (Euphorbia meculata)	Seeds	June-Nov	Dry, cool area	April-July	Entire U. S.	10 0 1	Annual, branched stem, prostrate, spreading, full sun	Prefers dry soils
			(Cont	10000				

(Alphabetised by Comon Rese)	Pest Propagule	Collection Periods	Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
Squarestem spikerush (Sloocharis quadrangulata)	frensplants.	Apr-Jul (trans.) Jun-Aug (seeds)	In sand beds or pots (trans.), dry, cool area (seeds)	March-July	Batire U. S.	To 1 .	Perennial, slender stems, square stems, full sun	Prefers moist areas, occurs on coasts in fresh
Sunflower (Medianthus Algantens)	Seed	July-Oct	Dry, cool area	April-June	Eastern and mid U. S.	10 t	Perennial, fleshy roots, creeping rootstock, branching, full sun	Prefers moist areas, stems often purple, showy flowers
Schweinits's mutsedge (Crerus schweinitisti)	Seeds	Aug-Oct	Dry, cool area	April-June	HE, GL, MRV, HP, MP	To 1 .	Perennial, thickened corms, slender stems, full sun	Prefers sandy soils, and moist areas
Thany sustand (Descursing pinnets)	8	May-July	Dry, cool area	March-May	Entire U. S. except SW	To 0.6 #	Annual, erect, branched, slender ascending branches, full sun	Prefers dry soils
fropic eroton (Groton glandulosus)	Seeds	Aug-Oct	Dry, cool area	April-June	SE, FL, MS, SP, MA,	To 1.5 .	Annual, rough, hardy, full sun	Pest in pasture areas, co-
fushio-wood (Americanihus sibus)	***	June-Sept	Dry, cool area	Mer-June	Entire U. S.	To 1 =	Annual, pale green, erect, bushy branched	Occurs in most soils, pre- fers dry
Virginia popperwood (Lepidine rireinica)	Seeds	May-Rov	Dry, cool area	Mr-June	Entire U. S. except CA, PMW	To 0.5 .	Many branched, hardy, full sun	In dry soils, pest plant in fields, on many dredged material islands
Western regreed (antrosia milostachra)	1	Sept-How	Dry, cool area	Apr-June	NE, CA, SW, NE, GL, NP, NP,	To 2	Perennial, creeping root- stock, hardy, full sun	Prefers well-drained soils, a pest plant
Mate clover (Trifolium repens) 1.2.3	Seeds (inoculated)	May-Sep (north)	Dry, cool area	Jan-Mar (south) Mar-Jun (north)	Entire U. S. except MM	To 0.3 .	Shallow rooted perennial with creeping branches, full sun	Cultivated as pasture and hay crops, occurs on moist soils
White sweetclover (Melilotus alba)	Seeds (inoculated)	Apr-May (south) Jun-Now (north)	Dry, cool area	Nov-Peb (south) Mar-May (north)	Eastern U. S.	To 3.3	Annual, erect or ascend- ing, branching, full sun	Roadsides, pastures, lawns, occurs in moist soils
Wild bean (Strophostyles belvola)	Seeds (inoculated)	Sept-Oct	Dry, cool area	March-June	Eastern and mid-U. S.	70 3 m	Summer annual legume, winey, full sun	Occurs on beaches, toler- ates sait spray
Wild buckwheat (Polymona coavolvulus)	Seeds	June-Nov	Dry, cool area	Mar-June	Entire U. S.	To 1 =	Annual, winey plant, rapid growth, full sun	Occurs in most soils, a pest plant in crops
Wild sensitive pes (Cassia nictitans)	Seeds (inoculated)	June-Rov	Dry, cool area	Mr-June	Entire U. S.	To 0.3 m	Annual, erect, branching, full sum	Prefers dry soil
Wild strawberry (Frageria zirginiana)	Seeds, transplants	Mar-May (south)	In sand beds (trans.) dry, cool area (seeds)	Sept-Feb	Eastern and mid U. S.	To 0.1 m	Perennial, stout, slender stalks, shade or sun	Prefers dry, rich soil, edible berries
Woolly eroton (Groton engitatum)1,3	Steds	Aug-Oct	Dry, cool area	April-June	SP, MP,	To 2.3 m	Robust, branching ennual, good seed production, full sum	Pest in pastures, grows on most soils, prefers sandy areas
Woolly indianwheat (Plantago Parahii)	Steds	Sny-kal	Dry, cool area	Merch-June	M. SP. MP.	To 0.3	Annual, ascending leaves, slender stems, full sun	Prefers dry plains and prairies, other dry areas
Tellow starthistle (Centeures solstitisalis)	Seeds	July-Sept	Dry, cool area	April-June	HE, MA, MRV.	To 0.6 m	Annual, branched, winged stems, full sun	Pest plant in cultivated areas
Reliow semetatower (Medilotus officinalis)	Seeds (inoculated)	May-Jun (south) Jul-Nov (north)	Dry, cool area	Mov-Feb (south) Apr-Jun (north)	Eastern U. S.	To 0.3 B	Annual, erect or ascend- ing, branching, full	Occurs in waste areas and fields, most soils

Table 2 (Continued)

SHORT SALES	Not Property	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
THEORY SAME	1	Gept-Nov	Dry, cool area	March-June	NE, MA, SP. SW, GL, MRV	To over 8m	Tvining, woody vine, ascending trees or trailing on ground	Prefers rich, moist soil
Nin Aschar	Paler, seeds	Sept-Mar (tubers) June-Sep (seeds)	In soil beds, dry,	Feb-June	MA, SE, PL,	Long trail- ing stems	Tuber rootstocks, stout, hardy, evergreen, spines, shade	Prefers moist areas in woods and thickets
Safety Galacters	Roted stems, seeds	Sept-April	In sand beds, dry,	Mar-June	Eastern U. S. and SP	To 4 m	Perennial, twining, large roots	Prefers sandy beaches and dunes
BRIGHE EST-SELECTES)	2 mg	May-Aug	Dry, cool area	Mar-June	Eastern and mid-U. S.	Long trail- ing stems	Woody, 4-angled shoots, spiny, shade to sun	Prefers moist areas in woods and thickets, occurs in dry areas
Transfer (Manuala carrolata)	Seeds	May-August	ry, cool area	Mar-June	SE, MS, FL,	То 20 в	Woody, cross visible in cross-section, shade or sun	Prefers moist woods, occurs in moist open areas
(TELE INDENCE)	Seeds	Aug-Sept	Remove pulpy coat dry, cocl area	Mar-June	MA, NE, MRV,	To 30 m	Climbing, large stem, shade	Prefers thickets, native stock for cultivated grape hybrids
(Sailes boss-noz)	Tuber, seeds	Sept-Mar (tubers) Apr-Jul (seeds)	In soil beds (tubers) dry, cool area (seeds)	Apr-June	Eastern and mid-U. S.	Long trail- ing stems	Woody, 4-angled, large tubers, spiny leaves and stems, shade or sun	Prefers thickets, moist areas, occurs in dry habitats
Total grape (Vicie rulping)	Transplants	June-Oct	Remove pulpy coat dry, cool area	Mar-June	NE, MA, SE,	Long trail- ing stems	Climbing, pubescent, thin shining leaves, shade or sun	Prefers moist rocky areas, occurs in open moist areas
Apanese honeysuckie (Lonicera laponica)	Root stock, transplants	June-Sept	Dry, cool area	Feb-June	Entire U. S.	Long climb- ing stems	Pubescent, fragrant, per- sistent, shade or sun	West plant in unkept areas, excellent forage plant
(Parenta lobata)	Root stock, transplants	Sept-March	In soil beds or pots of soil	Feb-June	Entire U. S.	Long climb- ing stems	Hairy, 3-foliate leaves, sun or shade	Pest plant in unkept areas, excellent cover vine, ornamental
(Smiles smellii)	Seeds	April-August	Dry, cool areas	Mar-June	SE, FL, SP,	Long trail- ing stems	Woody, slender, no tubers or spines, shade or sun	Prefer dry thickets
(Vitis rotundifolis)1.3	Seeds, transplants	Aug-Oct	Remove pulpy coat dry, cool areas	MarchJune	SE, MA, FL, SP, MP, MS	Long trail- ing stems	Woody, slender stems, large leaves shade or sun	Prefers moist sandy soil in thickets, occurs in silt and clay in open
(Ampelopsis arbores)	Seeds	Sept-Oct	Dry, cool area	March-June	Entire U. S.	Long climb- ing stems	Numerous tendrils, aerial roots, fast growing, dense cover, sun or shade	Prefers wood and thickets, dry soil, but occurs in open areas
Savbrier (Sellax glauce)	Seeds	Sept-Mar (tubers) June-Aug (seeds)	In soil beds (trans.) dry, cool area (seeds)	March-May	Eastern U. S. and SP	Long trail- ing stems	Deep, tuberous rootstock, stout spines, shade or sun	Prefers dry sandy soil, also called sassparilla
Numer grape (Vitis aestivalis)	Seeds	Sept-Oct	Remove pulpy coat, dry,	March-June	SE, MS, FL	Long trail- ing vine	Evergreen, coarse- stemmed, persistent, sun or shade	Prefers dry soil in woods, it occurs in open
Supplejack (Berchania scandens)	Seeds, transplants	May-August	Dry, cool area	March-June	MS, SE, FL, SP	High climb- ing stems	Shrub, tough, stout leaves and stems	Prefers moist woods, but occurs in open areas
Virginia creeper (Parthenociassus quinquefolia)	Seeds	Aug-Oct	Remove pulpy coat dry,	March-June	NE, MA, MRV, ME, SP, MP, NP	High climb- ing stems	Large leaves, bark loose and shreddy, tendrils, shade or sun	Prefers dry soil in thickets, occurs in the
fild bamboo (Smilax auriculata)	Seeds	Oct-Nov	Remove pulpy coat dry, cool area	March-June	3E, MS, FL	Long trail- ing vine	Evergreen, coarse stemmed, persistent, sun or shade	Forms low thickets in the open or wood areas

78

Table 2 (Continued)

(Alphabetized by Common Name)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
Shrubs and Small Trees American elderberry (Sambucus canadensis)	Transplants, seeds	Sept-March July-Sept	In nursery, dry, cool place	Feb-June	Eastern and mid-U. S.	9 9	Deciduous, many stemed, large flowers, full sun	Prefers moist soils, but occurs over wide soil rances
American hornbeam (Carpinus caroliniana)	Transplants	Sept-March	B&B# or potted in nursery	Feb-June	Eastern and mid-U. S.	To 9 m	Deciduous, round crown, partial or full shade	Prefers dry soils, often is understory in open woods
American plum (Prunus americana)	Transplants, seeds	Sept-March July-Sept (seeds)	B&B or potted in nursery, dry, cool place	Feb-June	Eastern and mid-U. S.	10 9 a	Deciduous, spreading crown, full to partial sun	Prefers moist soils, occurs in dense thick- ets, edible fruit
Arrowwood viburnum (Viburnum dentatum)	Transplants	Sept-March	BAB or potted in nursery	Feb-May	MS, SE	To 3 m	Deciduous, shrubby, large flowers, partial sun	Prefers moist soils, com- mon as understory
Autumn olive (Eleagnus unbellata)1,2,3	Transplants	Sept-March	B&B or potted in nursery	March-June	MA, SE, MS, FL, SP	To 5 m	Evergreen in south decid- uous in north full sun, shrub full to partial sun	Prefers dry soils, drought resistent, very hardy
Bayberry (Myrica Pensylvanica)	Transplants	Sept-March	B&B or potted in nursery	Feb-June	AN .	10 to	Evergreen, very dense, full sun, shrub	Prefers sandy soils, occurs in coastal areas, common on dredged as- terial, important habitet plant
Beach plum (Frunus maritims)	Transplants,	Oct-March	B&B or potted in nursery	Feb-May	MA, NE	To 2 B	Deciduous, low, many branched, full sun	Prefers sandy, coastal soils, edible fruit
Bearberry (Arctostaphylos uva-ursi)	Transplants, seedlings	Sept-March	BaB or potted in nursery, cleaned and stratified (seeds)	Feb-June	NE, MA, GL, MRV, NP, MM, CA, PWW	To 0.2 m	Evergreen, spreading shrubby, slow growth, shade to full sun	Occurs in dry, sandy, and rocky soils
Seautyberry (Callicarpa americana)	Transplants, seeds	Sept-March	B&B or potted in nursery	Feb-June	SE, MS, FL,	To 2.5 m	Deciduous, shrubby abun- dant fruit, full sum to partial shade	Grows in variety of soil conditions, does best as understory plant
Bicolor lespedeza (Lespedeza bicolor)	Transplants	Sept-Nov Mar-June	B&B or potted in nursery	March-June	MA, SE, FL,	To 3 m	Deciduous legume, irreg- ular shrub, full sun	Tolerates poor soils and drought conditions, pre- fers well-drained, dry areas
Black raspberry (Rubus occidentalis)	Transplants	Sept-March	Potted in nursery or	Feb-June	NE, MA, SE,	TO 1	Deciduous, spiny, glaucous, roots from stem tips, full sun	Occurs in most soils, per- sistent, pest plant in pastures
Blue brish (Ceanothus thryiflorus)	Seeds	June-Aug	Dry, cool area	Feb-June	PNW, CA	To 1 m	Deciduous, shrubby, shade to sun •	Occurs in dry, rocky, sandy areas, used for tea sub- stitute by pioneers
Blue elderberry (Sambucus caerulea)	Seeds	July-Oct	Cleaned and strati- fied seeds	Feb-June	SW, CA, PW	70 B	Deciduous, many stemmed, showy flowers, full sun	Occurs in most soils in open or in edges of woods
Brazilian peppertree (Schinus terebinthifolius)	Cuttings, transplants	Oct-April	In rooting medium (cuttings), B4B or potted (trans.)	Oct-June	T.	To 10 m	Evergreen, many branched, tropical, showy flowers, full sun	Occurs in most soils be- low freeze line in Flor- ida, common on dredged material islands
Srever saitbush (Atriplex brever!)	Seeds	June-Sept	Dry, cool area	Feb-June	CA. 58	To 0.5 m	Shrubby, dense, full sum	Occurs in dry, saline soil, also known as sage brush
(Shepheria candensis)1	Seeds	'uly-Sept	Cleaned and stratified	March-June	NE, MA, GL,	To 2.5 m	Deciduous, shrubby, shade to sun	Occurs in moist soils

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Table 2 (Continued)

Seeds	Species (Alphabetized by Common Name)	Sest Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Seed Suly-Sept Dry	Shrubs and Small Trees (Continued)								
Seeds, Sept-Aucr And or potest in New-York Ne	Bush lupine (Lupinus albifrons)	Seeds	July-Sept	Dry, cool area	March-June	PHV, CA	To 0.5 .	Perennial, shrubby, many seed pods, full sun to part shade	Occurs in dry and well- drained soils, both in open and in edges of woods
Transplants Sept-Mar Mab op potted in Na-back NFW, CA 70 2 m Decidorous, abruably, call as Sept-March March Na, March Ma	California blackberry (Rubus ursinus)	Seeds, transplants	Sept-Apr (trans.) Jun-Jul (seeds)	B&B or potted in nursery (trant.) cleaned and strati- fied (seeds)	Feb-May	PNV, CA	1 01	Ferennial, woody, many branched, arching, full sun	Occurs in dry, well- drained areas in most soils, wery dense wood
Fresh, Sept-Apr (treas.) May Detect in Mar-June S. M. M. To 7 s. Perform, which the fresh contains the fresh	(Rhamnus californica)	Transplants	Sept-Mar	B&B or potted in nursery	Feb-May	PHV, CA	To 2 .	Deciduous, shrubby, thorny, full sun	Occurs in dry soils
Transplants Sept-March Nature N	(Amelanchier canadensis)	Seeds, transplants	Sept-Apr (trans.) May-June (seeds)	B&B or potted in nursery (trans.) cleaned and strati- fied (seeds)	Mar-June	SE, NE, MA	To 7 .	Deciduous, upright, shrubby, pubescent young twigs, full to partial sun	Prefers moist areas, occurs in most soils
High, cuttings July-Oct (cuttings) Citemed and stratified her-lune battern and To 1.5 m Decidence, shorter, activities April-Oct (cuttings) (injuly, in rocting and stratified her-lune BM or potted in her-lune Sign M. To 2 m Decidence, shorter, and strainings and stratified Mar-lune Sign M. To 2 m Decidence, shoulds, and strainings are seeds and straining market market should be seed and straining market market should be seed and straining market market should be seed and straining market should be seed at the seed and straining market should be seed at the seed and straining market should be seed at the seed and straining market should be seed as seed strain seed straining seeds should seed and straining market should be seed as seed straining seeds should seed as seed straining seeds should seed as seed straining seeds should seed as surrocked in the seed straining seeds should seed as seed seeds should seed as seed straining seeds should seed as seed seeds should seed as seeds	(Praxinus caroliniana)	Transplants	Sept-March	bas or potted in nursery	Mr-June	M. SE. FL. MP. MS. SP		Deciduous, pubescent, 5-7 leaflets, shade or sun	8
Seeds July-Sept Cleaned and stratified Apr-June SE, KS, MA To 10 m Roctidous, shrubby, abade Crustings Sept-March MaS or potted in Ructh-June SE, KS, MA To 10 m Rections, shrubby, assential branches, shrubby Seeds June-July Cleaned and stratified Feb-May SE, KS, MA To 10 m Rectionus, shrubby, and shrubby Seeds Ang-June Sept-March Cleaned and stratified Mac-June SE, KF, MA To 10 m Rectionus, shrubby, abrubates Ang-June Seeds Ang-June Sept-March Cleaned and stratified Mac-June SE, FM, KS To 10 m Rectionus, shrubby under-June Sept-March (seeds) Ang-June Ang-Jun	(Rosa carolina)	Hips, cuttings	July-Oct (hips) April-Oct (cuttings)	Cleaned and stratified (hips), in rooting medium (cuttings)	Feb-June	Eastern and mid U. S.	To 1.5 .	Decidaous, thorny, arching, fast growing, full sun	Occurs in most soils, well-drained to dry, open areas
Transplants Sept-March Bas or potted in March-June SE, MS, MA To 2 m Resignes, alrubby, assets June-July Cleaned and stratified Feb-May SE, MS, MA, To 2 m Decidates, Angla sea to partial seeds Ang-Sept Cleaned and stratified Mar-June SE, FL, MS, To 2 m Decidates, Angla sea to partial seeds Angla Sept-March Eds or potted in Feb-May SE, MS, MA, To 2 m Decidates, abrubby, Angla seeds Angla Sept-March (seeds) Bas or potted in March-June GL, MS, SE TO 10 m Decidates, abrubby or tree, seeds Agr-June (seeds) and stratified March-June GL, MS, SE TO 10 m Decidates, abrubby or tree, seeds Agr-June (seeds) and stratified March-June GL, MS, SE TO 10 m Decidates, abrubby or tree, seeds Agr-June (seeds) and stratified and stratified GL, MS, SE TO 10 m Decidates, abrubby or tree, seeds Sept-March (seeds) and stratified and stratified at 50 margery, attaified seeds and stratified seeds) Transplants and stratified seeds (seeds) MM, SE, MS, To 7 m Growthe, All sun protted in Reb-May Bas or potted in Reb-May Bas NA To 7 m Growth Bas or potted in Reb-May Bas NA To 8 m Decidates, and stratified or sun public or sun publ	(Shamnus purshiana)	Seeds	July-Sept	Cleaned and stratified	Apr-June	PIN, CA	To 7 =	Deciduous, shrubby, shade to full sun	Occurs in most soils, open areas or in woods
Seeds June-July Cleaned and stratified Feb-Max SF, MA, To 2 m Decidation, shrubby, many fruit, and wall-like transplants Sept-March (seeds) Sept-M	Cherry laurel (Prunus caroliniana) ^{1,3}	Transplants, cuttings	Sept-March	B&B or potted in nursery	March-June	SE, KS, KA	To 10 m	Evergreen, shrubby, ascending branches, full sun to partial shade	Occurs in most soils, cul- tivated as an ornamental
Transplants Sept-March East or potted in Peb-June SF, FL, MS, To 10 m seeds few, shade or raw nursery cleaned and stratified Mar-June MS, MS, MS, To 2 m tickets, shade or raw notes and are soils, seeds a marsery stratified March-June GL, MS, MS, MS, MS, MS, MS, MS, MS, MS, MS	Chickesav plum (Frunus angustifolia)	Seeds	June-July	Cleaned and stratified	Feb-May	SE, MS, MA,	To 2 .	Deciduous, shrubby, thorny, large fruit, full sum	Ferns, thickets, occurs in most dry and well- drained soils
Seeds hag-Sept Cleaned and stratified Nar-June NG, NBV, GL, To 10 m Decidation, shrubby under- formed formed formed stratified seeds Sq. NBV, GL, NB C, NBV, GL, NB, SE, NB, To 2 m Ground stems, forms rocky areas rocky areas seeds and stratified strategies and stratified seeds are seeds seeds seeds and stratified seeds and stratified seeds seed	(Shamus carolinians)	Transplants	Sept-March	848 or potted in nursery	Feb-June	SE, FL, MS,	To 10 =	Deciduous, shrub or tree, seeds fev, shade or sun	Prefers moist soils, in open or edges of woods
Transplants, Sept-March (seedings) Bab or potted, cleaned Arabic and stratified and stratified and stratified and strangulars, shade or sun seeds and strangulars, shade or sun seeds and strangulars, shade or sun seeds and strangulars at 5°C sept-March (seedings) Bab or potted in mursery attailised and strangulars and seeds seedings Sept-March (fruns.) Bab or potted in Peb-May (M. SE. MS To 3 m Decidous, large waxy cliented and stratified and stratified and stratified and stratified and stratified seeds (M. SE. MS To 3 m Decidous, large waxy clients, months and stratified seeds)	Common chokecherry (Prunus virginiana)	Seeds	Aug-Sept	Cleaned and stratified	Mer-June	MS, MRV, GL, MP, MV, SW, PMV, CA	To 10	Deciduous, shrubby under- ground stems, forms thickets, shade or sun	Occurs in most soils including sand dunes and rocky areas
Seeds, Sept-March (seedlings) Babro potted in March-Tume GL, MS, SE Septembarb, Pull services and consensual seedlings Sept-March (seedlings) partial seeds at 5°C sept-March (truns.) Bab or potted in Peb-May MA, SE, MS To 3 m Deciduous, large waxy cutter and nursery cutted in Peb-May MA, SE, MS To 3 m Deciduous, large waxy cutter, mostly in seeds seeds May-Cutter (truns.) Peb-May MA, SE, MS To 3 m Deciduous, thorny, bitter Occurs in most dry on the field (seeds) Peb-May MA, SE, FA, To 7 m Deciduous, thorny, bitter Occurs in most dry on this seeds May-Cutter (truns.) Peb-May MA, SE, FA, To 7 m Deciduous, thorny, bitter Occurs in most dry on this seeds May-Cutter (seeds) Peb-May MA, SE, FA, To 7 m Deciduous, thorny, bitter Occurs in most dry on thickets and sold may seed May or potted in Peb-May SE, FL, MS To 8.5 m Deciduous, thorny, alor Prefers sendy moist on sold or open areas Transplants Occu-March Mak or potted in Peb-May SE, FL, MS To 18 m Deciduous, large leaves, Prefers sendy moist or open areas Transplants Occu-March Mak or potted in Peb-May SE, FL, MS To 18 m Deciduous, large leaves, Prefers sendy moist or open areas Transplants May or potted in Peb-May SE, MS To 18 m Deciduous, large leaves, Prefers and population May or potted in Peb-May SE, MS To 18 m Deciduous, large leaves, Prefers dry, solls, solls	Common desrberry (Vaccinium stamineum)	Transplants, seeds	Sept-Mar (trans.) Apr-June (seeds)	B&B or potted, cleaned and stratified	Peb-May	Eastern U. S.	To 2 .	Deciduous, much branched, irregular, shade or sun	Occurs in dry soils in woody, thickets, and edges of woods
Transplants Sept-March Raß or potted in Peb-May MA, SE, MS To 3 m Decidobou, large waxy or abade or sun Transplants, Sept-March (trans.) Baß or potted (trans.) Peb-May MA, SE, PA, To 7 m Decidobou, thormy, bitter Ce fruit, shory flowers, fig.—fig. (seeds fig.—fig.) fig.—fig. (seeds fig.—fig.) fig. (seeds fig.—fig.) fig. (seeds fig.—fig.) fig. (seeds fig.) fig.) fig. (seeds fig.) fig. (seeds fig.) fig. (seeds fig.) fig.) fig. (seeds fig.) fig. (seeds fig.) fig.) fig.) fig. (seeds fig.) fig.) fig.) fig.) fig.) fig.) fig.) fig. (seeds fig.) f	Common juniper (Juniperus communis)	Seeds, seedlings	Sept-March (seedlings) Sept-Mov (seeds)	a a	March-June	GL. NS. SE		Spreading, narrowlesf evergreen shrub, full sun	Used as an orbasental shrub over a large range, quite hardy, tol- erates alkaline soils
Transplants, Sept-March (trans.) B&B or potted (trans.) Feb-May MA, SE, FA, To 7 m Decidabous, thorny, bitter (cleaned and cract.) Transplants	Common sweetlesf (Symplocos tinctoris)	Transplants	Sept-March	B&B or potted in nursery	Peb-May	MA, SE, MS	9 3 B	Deciduous, large waxy leaves, sweet taste, shade or sun	Occurs in woods and thickets, mostly in shade, sometimes in open areas
Transplants Oct-March B&B or potted in Peb-May SE, FL, MS To 8.5 m Evergreen, thorny, slow growing, full sun growing, full sun principlants Sept-March B&B or potted in Peb-June SE, MS To 14 m Decidious, Large Leaves, nursery	Crabapple (Melus angustifolia)	Transplants, seeds	Sept-March (trans.) May-July (seeds)	Sean or potted (trans.) cleaned and strati- fied (seeds)	Feb-May	MA, SE, FA,	To 7 =	Deciduous, thorny, bitter fruit, showy flowers, full sum	Occurs in most dry soils, in open thickets
Transplants Sept-March BaB or potted in Feb-June SE, MS To l' m Deciduous, large leaves, organ	(llex cassine) ¹	Transplants	Oct-March	B4B or potted in nursery	Feb-May	SE, FL, NG	To 8.5 m	Evergreen, thorny, slow growing, full sun	Prefers sandy moist areas, in woods c. open, in coastal areas
	Downy serviceberry (Amelanchier arbores)	Transplants	Sept-March	B4B or potted in nursery	Feb-June	SE. MS	To 14 m	Deciduous, large leaves, pubescent, shade or sun	Prefers dry, soils, in woods or open areas

Table 2 (Continued)

(Alphabetized by Common Name)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								
Eastern hophornbesm ; (Ostrya virginiana)	Transplants	Sept-March	B&B or potted in nursery	Feb-June	NE, GL, NP. SP, MRV. SE, MA. FL, MS	To 10 m	Deciduous, hardwood, leaves yellow-green, shade or sun	Prefers dry soils, in woods or in open areas
Elderberry (Sambucus glauce)	Seedr	June-Aug	Cleaned and stratified	Feb-June	MM, PNW, CA,	To 7 a	Deciduous, large seed- heads, few branches	Occurs in dry soils
Elderberry (Sambucus callicarpe)	Seeds	June-Aug	Cleaned and stratified	Feb-June	PNW, CA	To 7 =	Deciduous, shrubby	Occurs in dry soils
Evergreen blackberry (Robus laciniatus)	Seeds	June-July	Cleaned and replanted	Aug-Sept	Eastern U. S.	To 4 a	Stout, deciduous, arching branches, persistent	Pest plant in pastures, cultivated for fruit
Firsthorn (Pyracenthe coccines)	Seeds, transplants	Sept-Jan (seeds) Sept-Mar (trans.)	Cleaned and stratified (seeds), B&B or potted (trans.)	Feb-May	MA, SE, SP.	10 10 10	Evergreen, irregular, hardy, showy flowers and fruit, full sun	Occurs in most soils, does well in wet or dry areas, cultivated as ornamental
Flowering degwood 1 (Cornum floridm)	Transplants	Oct-Peb	B&B or potted in nursery	Feb-April	Eastern U. S. and SP	To 15 a	Deciduous, bushy crown, showy flowers, shade or sun	Occurs in dry soils, cultivated as orna- mental, in woods or in open areas
Gallberry (Hex glabra)	Transplants	Oct-March	B&B or potted in nursery	Feb-May	NE, MA, SE, FL, MS	To 2 m	Evergreen, shrubby, dot- ted underside of leaves, shade or sun	Prefers sandy soil, occurs on coasts
Gray dogwood (Cornus racenosa)	Transplants	Sept-March	B&B or potted in nursery	Feb-May	Eastern and mid-U. S.	To 2 m	Dense deciduous, shrubby, gray bark, shade or sun	Prefers moist soils, occurs in thickets, woods, open areas
Ground blueberry (Vaccinium myrsinites)	Seeds	May-June	Cleaned and stratified	Jan-March	SE, MS, MA	To 2 m	Evergreen, pubescent, few branches, shade or sun	Prefers moist areas, in woods or open areas
Groundsel tree (Baccharis halimifolia)	Seeds, transplants	Sept-Nov	B&B or potted (trans.) dry, cool area (seeds)	Jan-May	SE, MA, MS, SP, NE	To 3.5 m	Many branched, deciduous shrubby, full sun	Prefers moist areas, occurs on sea coasts, tolerates salinity
Halberd-leaved villov (Salix hastata)1.3	Transplants	Sept-March	B&B or potted	Feb-June	Entire U. S.	To 10 m	Many branched, deciduous full sun	Cultivated as ornamental
Hibiscus (Hibuscus soscheutos)	Seeds, transplants	Sept-Mar (trans.) June-Aug (seeds)	D&B or potted (trans.) dry, cool area (seeds)	Feb-June	FL. MS.	To 2.3 m	Deciduous, many branched, erect, large seed pods, full sun	Prefers moist soils, tolerates some salinity, occurs on coasts and inland
Highbush blueberry (Waccinium correbosum) ^{1,3}	Seeds, cuttings	Jun-Aug (seeds)	Cooled, cleaned, and planted (seeds) layered in rooting medium (trans.)	Feb-June	NE, SE, MA, FL, MS	e -	Deciduous, erect, hardy, many branched, shade to full sun	Occurs in moist soils
Hollyleaf cherry (Frunus ilicifolis)	Seeds, transplants	July-Sept	Cleaned and stratified	Nov-May	5	10 B	Evergreen, serrated holly-like leaves, full sun	Prefers dry soils
Honey mesquite (Prosopis juliflors)	Seeds	Aug-Sept	Dry, cool area	Feb-May	SP, SW	To 14 m	Deciduous, shrubby, thorny irregular crown, full sun	Prefers dry, sandy, or loam soils, pest plant in western pastures
Hooker's willow (Salix hookerians)	Cuttings	year-round	Layered in rooting	Feb-June	PNV, CA	To 10 m	Deciduous, shrubby, pubescent, full sun	Prefers moist areas, tolerates shifting sand and flooding
Japanese lespedeza (Lespedeza Japonica)	Seeds, inoculated	May-Sept	Dry, cool area	Feb-June	Entire U. S.	To 1 .	Shrubby, woody, peren- nial, full sum	Cultivated for grazing
(Vaccinium vacilians)	Seeds	June-July	Cleaned and stratified	Oct-May	SE, M, MS	To 0.6 m	Shrubby, erect, rhizomous, stout, shade or sun	Prefers dry areas, thickets or woods

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Mapleleaf viburnum (Viburnum acerifolium)	Seeds	July-Oct	Cleaned and stratified	Feb-May	SE, MS, MA	To 1 m	Deciduous, shrubby, maple shape leaf, shade or sun	Thickets or open areas
Marsh elder (Iva frutescens)	Transplants	Oct-April	B&B or potted in nursery	Feb-May	NE, MA, SE, FL, MS, SP	To t a	Deciduous, many branched, serrated leaves, full sun	Prefers sandy, moist areas, occurs on coastal islands, dunes and marshes
Mountain blackberry (Rubus allegheniensis)	Seeds, rootstock	June-July (seeds) Year-round (rootstock)	Cleaned and replanted (seeds), in soil beds (root stock)	Sept-Nov (seeds) Feb-May (rootstock)	NE, MA, GL,	То 3.5 в	Deciduous, hardy, very robust, prollfic fruit- ing, full sun, spiny	Pest plant in pastures, occurs and thrives almost anywhere
Multiflora rose (Rosa multiflora)1.3	Transplants	Sept-March	B&B or potted in nursery	Feb-June	Entire U. S. except NP	10 14	Deciduous, arching, thorny, showy flowers, full sun	Pest plant in unkept pastures and fields, cultivated for wind- breaks and cover
(Quercus mortifolia)	Transplants	Oct-March	B&B or potted in nursery	Oct-Mar	Ę	To 15 m	Evergreen, leathery, full sun	Prefers sandy coastal soils, tolerates salt spray
Northern bayberry (Mrrica pensylvanica)	Transplants	Oct-Mar	B&B or potted in nursery	Feb-June	NE, MA	To 15 m	Evergreen, pubescent, dense, dark green, full sun	Prefers sandy coastal soils, tolerates salt spray
Oleander (Merium oleander) 1,2,3	Transplants	Oct-Mar	B&B or potted in nursery	Feb-April	SW, FL, MS	To 10 m	Evergreen, dense, upright stems, showy flowers, full sun	Prefers dry sandy soils, tolerates salt spray and drought, not freeze tolerant
(Mrice californice)	Transplants	Sept-Mar	B&B or potted in nursery	Mar-June	PW, CA	To 9 H	Evergreen, shrubby, dense foliage, full sun	Prefers sandy sites, occurs in coastal areas, tolerates salt spray
(Cormus nuttallii)	Transplants	Sept-Mar	B&B or potted in nursery	Feb-June	PNW, CA	To 3 m	Deciduous, shrubby, erect, bushy, full sun and shade	Prefers well-drained areas
(Myrice californice)	Transplants	Oct-Feb	B&B or potted in nursery	Feb-May	PNW, CA,	To 11 m	Evergreen, thick shrubs, ascending branches, full sun	Prefers moist areas, occurs in marshes, gullies, sand dumes, islands
(Salix lasiandra)	Cuttings, transplants	Year-round (cut.) Sept-Mar (trans.)	In rooting medium (cut.), B&B or in pots (trans.)	Feb-May	PNW, CA	To t =	Deciduous, shrubby, fast growing, full sun	Prefers moist areas
(Rhus radicans)	Transplants	Sept-Mar	B4B or in pots in nursery	Peb-June	Entire U. S.	To 5 m	Deciduous, fast growing, full sum	Prefers moist areas, vine form not recommended for planting
(Liex decidum)1+3	Seeds	Sept-Dec	Cleaned and stratified	Mar-June	GL, SP, MP, MRV, SE, MS, MA, FL	To 10 m	Deciduous, red berries, very showy, shade or sun	Prefers moist areas, cul- tivated as ornamental
(Viburnum nudum.)	Seeds	Aug-Oct.	Cleaned and stratified	Mar-June	SE, MS, MA,	To 8 m	Deciduous, large leaves, shade or sun	Occurs in moist soils, in woods or in open
(Salix purpures)	Transplants, cuttings	Sept-March	In rooting medium, B&B or potted	Mar-June	MA, MRV, NE	- O-	Deciduous, purple stems, slender, full sun	Cultivated as an ornamental, prefers moist places, used in bank stabilization
(Sallx discolor)	Transplants, cuttings	Sept-March	B4B or potted in nursery	March-June	NE, NP, GL	F 6 0F	Deciduous, shrubby, full sun	Prefers moist soils, widely used as an ornamental

(Sheet 16 of 72)

Freedom Free		Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Transplants	Seeds July-Oct Dry cold area Northing Sellon Tob-New Tob 1 a	os and Small Trees (Continued)								ACCOUNTS OF THE PARTY OF THE PA
Transplants Sept-Mort (States) Optical action Tra-bady Tra-bady Tra-bady Tra-bady Transplants Sept-Mort (States) Optical (Stat	Transplants fort-round (cut.) in rooting section Feb-May FFF, CA TO 15 m cutings for cutings for the feether f	Atriplex lentiformis)	Seeds	July-Oct	Dry, cool area	Mar-May	AS.	To 1 m	Deciduous, shrubby, pale green, full sun	Prefers dry, sandy soils tolerates salinity
Franchische August Augus	Transplants	Alnus rubra)	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium (cut.), B&B or in pots (trans.)	Feb-May	PMW, CA	To 15 m	Deciduous, shrubby, up- right branches, full sun	Occurs on most soils, on cutover forest land, beaches, streams
Cattlings, Ass-April (trees, Ball or potted April-June Rr, 894, Cd. 70 2.3 Decident, abrubh, to the state of the	Outsigney	i buckeye Aesculus pavia)	Transplants, seeds	Aug-Oct (seeds) Sept-Mar (trans.)	Stratified (seeds), B&B or in pots	Feb-May	SE, MS, SP	00	Deciduous, shrubby, shade or sun	Large fruit is inedible, occurs in most soils
Seeds Ayril-June Cleaned and stratified March-June SE, MA, MS, To S	Seeds	Cornus stolonifera, 1,3	Cuttings, transplants	Aug-April (cut.) Sept-April (trans.)	In rooting medium B&B or potted	April-June	NE, MRV, GL, NP, SW, PNW, MV	To 2.3	Deciduous, shrubby, stoloniferous, full to partial sun	Occurs in moist soils, prefers moist poorly drained areas
Transplants Sept-March SaB or potted Feb-May SE, NF, NF Post Interpretation and product and stratified March-June Entire U. S. 70 7s Interpretation and product and stratified Feb-June FN, NF, NF, NF, NF, NF, NF, NF, NF, NF,	Transplants Sept-March Bab or potted Feb-May SF, MA, MF. To S m	erflat hawthorn Crateagus opaca)	Seeds	April-June	Cleaned and stratified	March-May	SE, MA, NS	To 5	Deciduous, leathery, thorny, shade or sun	Prefers dry soils, in woods or in open, red fruit
Seeds Sept-Oct (seeds) Classed and Stratified March-June Stife U. S. To 7 a Progress abridge Communication Seeds July-Oct Classed and stratified Feb-April St. S. W. To 2 a Decidence and stratified Feb-April St. S. W. To 2 a Decidence and stratified Feb-April St. S. W. To 2 a Decidence and stratified Feb-April St. S. W. To 2 a Decidence and stratified Feb-April Seeds July-Oct Seeds July-Oct Seeds Seeds July-Oct Seeds Seeds July-Oct Seeds July-Oct Seeds	Seeds July-Oct (seeds) Cleaned and stratified March-June Entire U. S. To 7 m	gh-leafed dogwood 1 Cornus drummondii)	Transplants	Sept-March	B&B or potted	Feb-May	SE, M. MS. SP. NP.	To 5 .	Deciduous, showy flowers, fast growing, sun or shade	Prefers moist areas, occurs in most soils
Seeds July-Oct Cleaned and straiffed Feb-June FW, CA To 2 m Decidations, Leathery, and a finite potted in Feb-June FW, CA To 2 m Decidations, Leathery, and Lune-Aug Cleaned and in dry March-June FW, CA To 2 m Decidations, Leathery, and Luny-Oct Lune-Aug Cleaned and in dry March-June FW, CA To 2 m Decidations, Leader fruit, and and Luny-Oct Dry, cool area Feb-May SW, CA; FP To 2 m Decidations, Abribby, pale Packeds Luny-Oct Dry, cool area Feb-May SW, CA; FP To 2 m Decidations, Abribby, pale Packeds Luny-Oct Lung-Lange fruit, and an area Transplants Seeds May-July Cleaned and straiffed Feb-May SP, FP To 2 m Decidations, Abribby, And Seeds Transplants Seept-March SWS or potted in Feb-May SP, FP To 1 m Decidations, Abribby, And Seeds Transplants Seept-March SWS or potted in Feb-May SP, FP To 1 m Decidations, Abribby, And SP, FP To 2 m Decidations, Abribby, And SP, FP To 3 m Decidations, Abribby, And SP, FP To 4 m Seeds SP, FP To 4 m SP, FP To 5 m SP, FP To 6 m	Transplants, Sept-March BaB or potted in Feb-May SW 70 3 m nursery Transplants Cleaned and stratified Feb-May SW 70 2 m nursery Transplants Sept-March BaB or potted in March-lune FW SF, To 1 m nursery Transplants Sept-March BaB or potted in March-lune WM, SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, To 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, To 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, To 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May SF, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 2 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 1 m nursery Transplants Sept-March BaB or potted in Feb-May Fre-May FW, FL 70 1 m nurser	sian olive Eleagnus angustifolius)1.2,3	Seeds, transplants	Sept-Oct (seeds) Sept-March (trans.)	Cleaned and stratified (seeds), B&B or potted (trans.)	March-June	Entire U. S.	To 7 .	Evergreen, shrubby, spiny, irregular crown, full sun	Occurs in most soils, cul- tivated for wind break, roadside, ornamental
Transplants, Sept-March and for potted in Feb-June FW, CA To 2 m Progress, stack attached by Seeds June-Aug Cleaned and in dry March-June FW To 2 m Decideous, branching, Collabor, Ballor potted in Feb-May SW, SW, FL To 1 m Decideous, shrubby, ballor potted in Teb-May SW, SW, FL To 1 m Decideous, shrubby, ballor potted in Teb-May SW, SW, FL To 1 m Decideous, shrubby, ballor potted in March-June MA, SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL To 1 m Decideous, shrubby, ballow, butted in Teb-May SW, FL, MG To 6 m Marroblef evergeten, and stratified Teb-May SW, FL, MG To 6 m Marroblef evergeten, butted in Teb-May SW, FL, MG To 6 m Marroblef evergeten, buttered in Teb-May SW, FL, MG To 8 m Sarroble, bull sun marroy, and stratic feeds SW, MW, FL, MG To 2 m Decideous, broth, bull sun spiny fount, field seeds	Fransplants, Sept-March BiB or potted in Feb-June FNW, CA TO 2 m root stock June-Aug Cteaned and in dry March-June FNW TO 2 m col area	ty blackbaw Viburnum rufidulum)	Seeds	July-Oct	Cleaned and stratified	Feb-April	SE, MS, MA,	To 3 m	Deciduous, leathery, shiny green, shade	Prefers dry areas, in woods, but occurs in thickets and open areas
Seeds June-Aug Cleaned and in dry March-June PNV To Sm Decidebous, branching, Cool area Seeds July-Oct Gry, cool area Transplants Oct-March Bab or potted in Feb-May NA, St, SP, To Sm Decidebous, abrubby, pale Practing and stratified Feb-May FPL, NS To 1 m Decidebous, abrubby, pale Bab or potted in Feb-May FPL, NS To 1 m Decidebous, abrubby, Tull sun areatings Transplants, Oct-March Bab or potted in Feb-May FPL, NS To 6 m Barrobled Ference, pill sun abrubby, full sun areatings Transplants Sept-March Bab or potted in Feb-May SS, NS, FL, To 1 m Becidebous, irregular crown, full sun areatings Transplants Sept-March Bab or potted in Feb-May SS, NS, FL, To 1 m Barrobled Ference, pill sun abrubby, full sun areatings Transplants Sept-March Bab or potted in Feb-May SS, NS, FL, To 1 m Becidebous, irregular or growth, full sun areatings areas and attack of seeds SM, NS, FL, To 2 m Becidebous, irregular or growth, full sun areatings areas and attack Feb-May (rootstock) NS, NM, FL, To 2 m Becidebous, brack, regular probast, problets, pro	Seeds June-Aug Cleaned and in dry March-June PNV To Sm Cool area Feb-May SW To 1 m Feb-May SW To 1 m Feb-May SW To 1 m Feb-May NA, SW, SP, To 5 m Nay-July Cleaned and stratified Feb-May FL, NG To 6 m Seeds May-July Cleaned and stratified Feb-May FL, NG To 6 m seedlings Sept-March BaB or potted in Feb-May FL, NG To 6 m mursery May-July Cleaned and stratified Feb-May FL, NG To 6 m seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, To 1 m mursery mursery Sept-March BaB or potted in Feb-May SE, NG, FL, To 1 m mursery mursery seedings Sept-March BaB or potted in Feb-May SE, NG, FL, To 2 m aseds June-July (seeds) Gentlaned and stratit Feb-May (rootstock) NG, NG, NG, FL, To 2 m (Continued)	Gaultheria shallon)1,3	Transplants, root stock	Sept-March	B&B or potted in nursery	Feb-June	PNV, CA	To 2 m	Evergreen, dark shiny leaves, shade	Prefers moist areas, cul- tivated for florist industry
Transplants Oct-March Rab or potted in Feb-May Na, SW, SP, To S m Decideous, shrubby, pale Property Transplants Sept-March Rab or potted in March-June Na, SW, SP, To S m Irregular croom, full sun Irregular croom, full sun Irregular croom, full sun Irregular croom, full sun Nay-July Cleaned and stratified Feb-May Feb-	Transplants Oct-March Bas or potted in Feb-May Sw. Sp. 70 im nursery Transplants Sept-March Bas or potted in March-June Mr. Sw. Ft. 70 im nursery Transplants Sept-March Bas or potted in Feb-May Ft. MS To 6 m nursery Transplants Sept-March Bas or potted in Feb-May Sp. 70 in nursery Transplants Sept-March Bas or potted in Feb-May Sp. 70 in nursery Transplants Sept-March Bas or potted in Feb-May Sp. MS. Ft. 70 in nursery Mootstock, Year-round froot.) In soil beds (root.) Sept-May (seeds) St. MS. Ft. 70 in neithed seeds) (Continued)	monberry Rubus spectabilis)	Seeds	June-Aug	Cleaned and in dry cool area	March-June	E	To 5 =	Deciduous, branching, leafy, shrubby, showy flowers, large fruit, shade	Occurs in moist areas, in woods and thickets
Transplants Oct-March Rab or potted in Feb-May WA, SW, SP, To 5 m Irregular errorn, All arm	Transplants Sept-March BaB or potted in March-June NE, NGV, SE, TO 9 mursery cuttings Sept-March BaF or potted in March-June NE, NGV, SE, FL TO 1 mursery Seeds May-July Cleaned and stratified Feb-May FL, NG TO 6 mursery seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, TO 10 m seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, TO 10 m seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, TO 10 m seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, TO 10 m seedlings Sept-March BaB or potted in Feb-May SE, NG, FL, TO 10 m seedlings Sept-March BaB or potted in Feb-May (rootsock) NG, NGV, To 2 m seedlings June-July (seeds) cleaned and stratt. Feb-May (rootsock) NG, NGV	tbush Atriblex polygarpa) ¹	Seeds	July-Oct	Dry, cool area	Peb-May	D.	To 1 m	Deciduous, shrubby, pale green, full sun	Prefers dry, sandy soils, tolerates drought and salinity
Transplants Sept-March Bar or potted in March-June NE, MSV, GG., To 9 m Decidaous, shrubby, Proutings Seeds May-July Cleaned and straiffed Feb-June NA, SE, FL To 1 m Decidaous, arching, Preceds Sept-March Rais or potted in Feb-May Fil, NS To 6 m Marrodest evergreen, Gallings Transplants Sept-March Bas or potted in Feb-May SE, NS, FL, To 10 m Decidaous, irregular and strain and str	Transplants Sept-March BMS or potted in March-June NA, SE, FL To 1 m De seeds May-July Cleaned and stratified Feb-May Fu, MS FL To 1 m De seedlings Cot-March BMS or potted in Feb-May SE, MS, FL, To 10 m De nursery Transplants Sept-March BMS or potted in Feb-May SE, MS, FL, To 10 m De nursery Seeds Sept-March BMS or potted in Feb-May SE, MS, FL, To 10 m De nursery Insplants Sept-March BMS or potted in Feb-May SE, MS, FL, To 10 m De nursery Seeds June-July (seeds) Insolit before and strati- Feb-May (rootsock) MS, MSF, To 2 m Deserts June-July (seeds) Insolit before and strati- Feb-May (rootsock) MS, MSF, To 2 m Deserts June-July (seeds) Ited (seeds) (Continued)	toedar Tamarisk parviflors) ^{1.3}	Transplants	Oct-March	B&B or potted in nursery	Feb-May	MA, SW, SP,	To 5 m	Evergreen, small foliage, irregular crown, full sun	
Seeds Way-July Cleaned and straiffed Feb-Nume NA, SE, FL To 1 m Decidoous, arching, robust, All sun fransplants, Oct-March SaB or potted in Feb-Num SE, FL, NS To 6 m Marrowleaf evergreen, and nursery and a seedlings Sept-March SaB or potted in Feb-Num SE, NS, FL, To 10 m Deciduous, irregular of growth, Aull sun mursery and seeds Sept-Numb Sept-	Transplants, Oct-March B&B or potted in Feb-May FL, MS To 6 m Maserdings Sept-March B&B or potted in Feb-May SE, MS, FL, To 10 m Manuscry Transplants Sept-March B&B or potted in Feb-May SE, MS, FL, To 10 m Manuscry Transplants Sept-March B&B or potted in Feb-May SE, MS, FL, To 10 m Manuscry Transplants Sept-March B&B or potted in Feb-May PNW SP Manuscry Transplants Sept-March B&B or potted in Feb-May PNW SE, MM, FL, To 2 m DN seeds June-July (seeds) (tested and stratt- Feb-May (rootatock) MS, MSY MSY (rootatock) MS, MSY MSY (continued)	Salix interior)1.3	Transplants cuttings	Sept-March	B&F or potted in nursery	March-June	NE. MRV. GL.		Deciduous, shrubby, dense, full sun	Prefers moist soils, riverbanks
Transplants, Oct-March SaB or potted in Feb-May FL, MS To 6 m Marrowless evergreen, Sept-March SaB or potted in Feb-May SE, MS, FL, To 10 m Deciduous, irregular On Growth, Auli sun nursery Transplants Sept-March SaB or potted in Feb-May SE, MS, FL, To 10 m Growth, Auli sun nursery Rootstock, Year-round (root.) In soil beds (root.) Sept-Mov (seeds) SE, MM, FL, To 2 m Deciduous, hardy, very Faceds June-July (seeds) Itel (seeds) Tet-May (rootstock) MS, MSV Tobust, Poblatic, Poblatic, Politics, Politics	Transplants, Oct-March B&B or potted in Feb-May FL, MS To 6 m Ma nursery Transplants Sept-March B&B or potted in Feb-May SE, MS, FL, To 10 m DR nursery Transplants Sept-March B&B or potted in Feb-May PNW SP	d blackberry Rubus cuncifolius) ²	Seeds	May-July	Cleaned and stratified	Feb-June	MA, SE, FL	To 1 m	Deciduous, arching, erect, spiny, robust, full sum	Prefers dry, sandy areas
Transplants Sept-March BaB or potted in Peb-May SE, MG, FL, To 10 m Deciduous, irregular on growth, full sun mirregular Sept-March BaB or potted in Peb-May PHW Bregreen abovy flowers, Peb-May PHW Brotzeng Gense growth, full sun abovy flowers, Rootstock, Vear-round (root,) in soll beds (root.) Sept-Mov (seeds) SE, MM, FL, To 2 m Deciduous, hardy, very Physical Brotzeng B	Transplants Sept-March BaB or potted in Feb-May SE, MS, FL, To 10 m DW Sp. March BaB or potted in Feb-May PNW B DW nursery Rootstock, Year-round (root.) In soil beds (root.) Sept-Moy (rootstock) MS, MAY, FL, To 2 m DW seeds June-July (seeds) fied (seeds) (Continued)	pinus clausa)1.2.3	Transplants, seedlings	Oct-March	BAB or potted in nursery	Feb-May	7. KS	To 6 m	Marrowleaf evergreen, shrubby, full sun	Grows in poor soils, tol- erates droughty, sandy conditions, occurs on coasts
Transplants Sept-March BMB or potted in Reb-May PNV Brangeren showy flowers, Paragreen showy in the Rootstock, Venr-round (root.) in soil beds (root.) Sept-May (rootstock) MS, MM, FL. To 2 m Deciduous, hardy, wary Paragreen shows and an antition of the following problems, pro	Transplants Sept-March BAB or potted in Peb-May PNW En nursery	tooth oak Quercus acutissima)1.0.3	Transplants	Sept-March	B4B or potted in nursery	Feb-May	SE, MS, FL,	To 10 m	Deciduous, irregular growth, full sun	Cultivated for wildlife food, occurs on most soils
Rootstock, Year-round (root.) In soil beds (root.) Sept-Now (seeds) SE, NA, FL, To 2 m Deciduous, hardy, very seeds June-July (seeds) cleaned and strati- Feb-May (rootstock) MS, MRV robust, prolliio fruit-fiel (seeds) fiel (seeds) fiel (seeds)	Rootstock, Year-round (root.) In soil beds (root.) Sept-Nov (seeds) SE, MA, FL, To 2 m Dw seeds June-July (seeds) cleaned and strati- Fet-May (rootstock) MS, MRV ; fled (seeds) (Continued)	Criisus scoparius)1.3	Transplants	Sept-March	B&B or potted in nursery	Feb-May	MA		Evergreen showy flowers, dense growth, full sun	Pest plant in some areas, cuitivated as ornamental elsewhere
	(Continued)	Pubus argutus) 1	Rootstock, seeds	Year-round (root.) June-July (seeds)	In soil beds (root.) cleaned and strati- fled (seeds)	Sept-Nov (seeds) Feb-May (rootstock)		To 2 B	Deciduous, hardy, very robust, prolific fruit- ing, full sun, spiny	Pest plant in pastures, occurs and thrives almost anywhere

Table 2 (Continued)

Shinte successions (Continues) Shinte successions Shore pine Shore pine (Fine sortorte)*** Shrub verben Shrub verben (Gorne memme)*** Silly degree (Gorne memme) Silly villov (Gorle memme) Silly villov (Gorle memme) Tran (Gorle memme)	Seeds, rootstock Transplants, cuttings							
ETES) ^{1,3} Si TES	ansplants.	Sept-Nov Sept-March	Cleaned and stratified (seeds), in soil beds (rootstock)	Feb-June	Eastern and mid-U. S.	To 4 m	Deciduous, little branch- ing, lateral spreading roots, forms thickets.	Occurs in moist soils, in open areas
(See 1811) 8		Sept-March	B&B or potted in nursery	Feb-May	PW, CA	To 12 =	Marrovleaf evergreen, spreading, full sun	Coastal dumes plant, wery hardy, can be grown from
(g) (g)	Seeds, transplants	May-Sept (seeds) Sept-Mar (trans.)	Dry, cool area (seeds) Bas or potted (trans.)	Jan-April	FL, SE, MS,	To 1 .	Deciduous, tropical, showy flowers, full	Seeds Cultivated as ornamental, prefers moist, sandy
ices)1	Transplants	Sept-March	B&B or potted	Feb-June	Eastern and mid-U. S.	To 3.3 m	Deciduous, purplish stems, full sun	Prefers moist soils, in woods, and in open
	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted (trans.)	March-June	ME, MA, GL,	10 1	Paciduous, purplish stems, pubescent, full sun	Prefers wet to moist moils, in open areas
Sitks alder Trans (Alnus sinusts) cu	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted (trans.)	Feb-May	26	To 10 m	Deciduous, shrubby, mul- tistemed, full sun	Prefers moist soils, in open areas
Smooth sumac (Rhus glates)	s p	Sept-Peb	Cleaned and stratified	Feb-June	Entire U. S.	70 2 a	Deciduous, shrubby, few branches, forms thick- ets from roots, full sum	Occurs in most soils, in open areas
Southern bayberry 1 Tran (Mrica cerifora)	Transplants	Sept-Mar	B&B or potted	Feb-May	SE, MA, FL,	To 5 .	Evergreen, denae, upright branches, full sun	Prefers moist, sandy areas, occurs on sea- coasts and islands
Southern devberry 1 Seed (Rubus trivialis) tr	Seeds, transplants	April-May (seeds) Year-round (trans.)	Cleaned and stratified (seeds), B&B or potted (trans.)	Jan-March	SE, MS, FL,	To 1 .	Deciduous, persistent, large fruit, full sun	Occurs in most soils, ex- cellent wildlife food
Sparkleberry Seeds (Vaccinium arboreum)	sp.	May-July	Cleaned and stratified	Jan-May	SE, MA, SP.	To 10 m	Deciduous in north, ever- green in south, sprawl- ing, shrubby, shade or full sum	Occurs in dry soils, in woods or open thickets
Squaw huckleberry (Vaccinium stamineum)	¥.	May-June	Cleaned and stratified	Feb-June	Eastern and mid-U. S.	To 5 m	Deciduous, leathery, shrubby shade or sun	Occurs in dry woods or open thickets, edges of woods
Staghorn sumac (Shus typhing)	spe	Oct-Dec	Cleaned and stratified	Feb-May	Eastern and mid-U. S.	To 1 =	seciduous, few branches,	Porms thicket, occurs in dry soils
Summersweet (Clethra alnifolia)	spa	Sept-Nov	Cleaned and stratified	Feb-May	SE, #6	To 1.5 m	Deciduous, ascending stems, pubescent, shade or sum	Occurs in most soils, in woods and open areas, cultivated as ornamental
Swarp privet (Forestiers acuminata)	Transplants	Sept-March	B&B or potted	Feb-May	3E, MS	To 8 m	Deciduous, many branches, shrubby, shade or sun	Prefers moist, bottomland type soils (silt, clay)
	Transplants	Sept-March	B&B or potted	Feb-June	MA, SE, MS	To 1 =	Deciduous, arching branches, full sun	Prefera moist soils
Tag alder (Alnus serrulats) cu	fransplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted	Feb-May	NE, MA, MS, SP, MRV	To 5 m	Deciduous, rusty, pubescent, shade or sun	Occurs in moist soils, in woods or in open areas
Tartarian honeysuckie Tran {Lonicera tartarica)1 ro	Transplants, rootstock	Sept-March	B&B, potted or in soil beds	Feb-June	Entire U. S.	To 2 .	Deciduous, showy flowers, full sun	Cultivated as ornamental
Texas bulsache Seeds (Acacia smallii)	ds.	Aug-Oct	Dry, cool area	Jen-April	SP, MS, SW	To 5 m	Deciduous, large seed pods, full sun	Prefers dry, sandy soils, tolerates drought and salinity

Table 2 (Continued)

Species (Alphabetized by Comon Hase)	Best Propagule	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								
Thorny elections (League Puntens)1.3	Transplants, cuttings	Sept-April	BaB or potted in nursery	March-June	Batire U. S.	70 t m	Evergreen, robust, thorny, spreading, arching, full sun	Cultivated as ornamental, tolerates poor soil and salt spray
Toothache tree (Zanthoxylum clavaherculis)	Transplants	Sept-March	348 or potted in nursery	Teb-May	SE, FL, MS,	To 12 m	Deciduous, fast growing, spiny, full or partial sun	Prefers well-drained soils, occurs on dredged material in Texas and North Carolina
Purkey oak (Quercus lacvis)	Transplants,	Sept-March	BLB or potted in nursery	Peb-May	SE, MA, FL	To 10 m	Deciduous, large leathery leaves, full sun	Prefers sandy coastal areas
Mar aprile (Mrice cerifore) 1,3	Transplants	Oct-March	B&B or potted in nursery	March-June	SE, FL, NS,	To 3.3 m	Evergreen, dense, shrubby, ascending branches, full sun	Prefers moist areas, does well on poor, sandy coastal sites
Western blackberry (Rubus vitifolius)	Transplants	Sept-March	B&B or potted	Peb-June	PHN, CA	To 1 .	Arching, deciduous, full sun	Occurs in dry soils, pest plant in pastures
Vestern chokecherry (Prunus virginians var.	1	Aug-Sept	Cleaned and stratified	Peb-May	CA, PW	10 8 m	Deciduous, bushy, full sun	Occurs in most soils, smells bad
Western dogwood (Cornus occidentalis)	Transplants	Sept-March	B&B or potted	Feb-May	PHY, CA	To 5 .	Deciduous, irregular branches, shade or sun	Occurs most soils, in woods or in open areas
Western huckleberry (Veccinium gratum)	Transplants	Sept-March	B&B or potted in nursery	Peb-June	PNN. CA	To 2.5 m	Evergreen, erect, alov growth, shade to sun	Occurs in dry woods
vild opple (Malus perile)	Seeds, transplants	Aug-Oct (seeds) Sept-Mar (trans.)	Cleaned and stratified B&B or potted	Peb-My	Entire U. S.	٠ 1 2	Deciduous, thorny, showy flowers, large fruit, full sun	Occurs in most soils, parent stock of all commercial apple trees
Wild black current (Ribes smericabus)	Transplants	Sept-March	B&B or potted	Feb-June	Forthern U. S.	To 1 .	Deciduous, arching, erect branches shade	Occurs in most soils
Wild cherry (Prunus conrected)	Seeds	Aug-Sept	Cleaned and stratified	Feb-June	PW. CA. SV	To 10 .	Deciduous, bitter fruit,	Occurs in most soils
Wild indigo (Baptisia leucophaea)	Seeds, transplants	Sept-Oct	Dry, cool area (seeds) B&B or potted (trans.)	Jan-March	SP. NS. SE	To 1 .	Deciduous, tumbles, seed- pods rattle, full sun	Occurs in dry soils, pre- fers sand or silt, tolerant of salt spray
Wild rose (Ross rugoss)1,3	Transplants, cuttings	Sept-March	B&B or potted in nursery (trans.), in rooting medium (cuttings)	Feb-June	M, SE, MS,	To 5 .	Deciduous, arching branches, thorns, profuse flowers, full sun	Prefers moist soils, fast growing, tolerant of wide range of soil conditions
Vingscale (Atribles canescens)	Seeds	Nov-Dec	Dry, cool place	Jan-Nay	M. Su. CA	To 2.5 m	Evergreen, shrubby, much branched, full sun	Tolerates drought and vide range of soil condi- tions, prefers dry sandy soil
Vinterberry (Ilex verticillata)3	Transplants	Sept-March	B&B or potted in nursery	March-June	SE, NS	To 5	Deciduous, arching, rounded crown, full sum or shade	Wide range of soil condi- tions, prefers moist soils
(Hammaelis virginiana)	Transplants	Sept-March	B&B or potted in nursery	Peb-May	ME, MA, SE, MS, MP, GL, MRV	To 10 m	Deciduous, shrubby, par- tial sum to full shade	Prefers moist soils
(Ilex vomitors)1,3	Transplants	Oct-March	B&B or potted in nursery	Jan-April	SF. M. MS.	0 6 m	Evergreen, forms dense thickets, has ornamen- tal dwarf form, full sun	Prefers sandy soils, grows on coast, tolerates sait spray
(Cercidium attrophyllum) ³	Transplants	Oct-March	B&B or potted in nursery	Jan-April	SW, CA	10 7 a	Deciduous, legume, shrubby, full sun	Tolerates extreme drought and some salinity, pre- fers sandy soil

Table 2 (Continued)

Sheet 20 of 22

Table 2 (Continued)

(Alphabetized by Common Hame)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meture	Growth Habits	Benarks
Honeylocust	Transplants	Sept-March	B&B or potted in	March-June	SE, MA, GL,	To 24 =	Deciduous legume, spiny, full or partial sun	Prefers moist fertile soils
Laurel oak (Quercus laurifolis)1,3	Transplants	Sept-March	B&B or potted in nursery	Jan-March	SE, SP, NS	To 30 =	Flat topped crown, broad- lesf evergreen, full	Prefers maist soils, occurs on coasts
Live oak (Quercus virginiana)1,3	Transplants	Sept-March	B&B or potted in nursery	Jan-May	SE, SP, KS,	To 15 =	Frengreen, large spread- ing crown, full sun	Prefers sandy moist soils, and occurs on coasts, tolerates salt spray
Loblolly pine (Pinus taeda)1.3	Transplants, seedlings	Sept-March	B&B or potted in nursery	PebJune	SE, SP, NG,	To 21 .	Harrowlesf evergreen, large crosm, full sun	Coastal and interior plant, on sandy and silt soils, (poorly drained)
Longlesf pine (Pinus palustris) 1,3	Transplants, seedlings	Sept-March	B&B or potted in nursery	Peb-May	MA, SE, MS, FL, SP	To 37 =	Marrowlesf evergreen, tall open crown, full sun	Prefers sandy conditions, but occurs in other soils, occurs on coast
Mockernut hickory (Carya tomentosa)	Trunsplants, seedlings	Sept-March	B&B or potted in nursery	Peb-May	RE, MA, SE, FL, ME, MRV, SP, MP	To 25 m	Deciduous, arching branches, full or par- tist sun	Prefers drier soils, edible nuts, hardy, common
Paper sulberry (Bromssonetia papyrifera)	Transplants	Sept-March	B&B or potted in nursery	March-June	Eastern U. S.	To 15 m	Deciduous, arching branches, full or par- tial sun	Exotic, naturalized in U. S., fast growing, forms thickets
Peachlesf villow (Salix anygdaloides)	Transplants, cuttings	Sept-March	B&B or potted in nursery (trans.), layered in rooting medium (quttings)	March-June	GL, NP, NP,	To 18 m	Deciduous, drooping branches, full sun	Prefers moist soils, grows on dredged material islands
Pecan (Carya illinoensis) ³	fransplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	SE, NG, SP.	To 43 m	Deciduous, irregular crown, full sum	Prefers moist soils, but grows in wide range of soil conditions, edible nuts
Persimon (Diospros virginiana)	Rootstock	Sept-March	In soil beds in nursery	Feb-June	MA, SE, FL, MS, SP, MP, MRV	To 18 m	Deciduous, drooping branches, full sun	Prefers moist, rich soils, but tolerates wide range of soil conditions, edible fruit
Pignut hickory (Carya glabra)	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	NE, MA, SE, PL, MS, MRV, SP, MP	To 23 .	Deciduous, open crown,	Prefers drier soils than other hickories
Redbay (Perses borbonia)	Transplants	Oct-March	B&B or potted in nursery	Feb-May	MA, FL, SE,	To 16 m	Evergreen, upright branches, full or par- tial sun	Often occurs in dense woods, prefers moist soils
Red maple (Acer rubrum)1,3	Transplants	Sept-March	B&B or potted in nursery	Feb-June	Entire estern U. S.	To 25 m	Deciduous, upright branches, full or par- tial sun	Prefers moist soils, videly used as an ornamental
Red mulberry (Morus rubra)1,3	Transplants	Sept-March	B&B or potted in nursery	March-June	Entire eastern U. S.	To 22 m	Deciduous, rounded dense crown, full or partial shade	Prefers moist, fertile soils, edible fruit
Hiver birch (Betule nigra)1.3	Transplants	Sept-March	B&B or potted in nursery	Feb-June	SP, NP,	To 25 m	Deciduous, irregular, mul- Prefers moist soils, tistemmed, full or par- used as ornamental tial sun	Prefers moist soils, used as ornamental, common in South
Sassafras (Sassafras albidum)1+3	Transplants	Oct-March	B&B or potted in nursery	Peb-May	NE, NA, SE, NE, SP, NP, NP, GL, MRV	To 27 B	Deciduous, spreading branches, full or par- tial sun	Prefers upland soils but occurs over wide range of soil conditions, forms dense thicket

Table 2 (Concluded)

(Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Meture	Growth Mabits	Reserte
Large Trees (Continued)								
Slash pine (Pinus elliottii)1,3	Transplants, seedlings	Oct-March	B&B or potted in nursery	Peb-May	8E, 7L, AS	70 30 .	Marrowlesf evergreen, dense, rounded crosm, full sum	Grove rapidly, commercial forest tree, occurs on coust
Southern red oak (Quercus falcata)	Transplants,	Oct-March	B&B or potted in nursery	Peb-May	MA, SE, MS,	To 25 .	Deciduous, rounded crown, full eum	Prefers poor upland soil, used as an ornemental
Sugarberry (Celtis leevigate)1,3	Transplants	Oct-March	B&B or potted in nursery	March-June	SE, FL, MS, SP, MP	To 12 .	Deciduous, spiny, irreg- ular cross, full sun	Prefers alkaline, well- drained soils
Sugar maple (Acer maccharum)2,3	Transplants	Sept-March	B&B or potted in nursery	March-June	GL, HE, HRV, HP, HP,	70 30 •	Deciduous, rounded cross, full sun	Frefers moist soils, used for wood, furniture, as an ornamental, and for syrup
Sweetbay (Magnolia virginiana)	Transplants	Oct-March	B&B or potted in numbery	Yeb-Hay	M, SE, FL,	To 18 .	Evergreen, shrub in north, tree in south, full sun to partial shade	Prefers moist soils, deciduous in north
Sweetgum (Liquidambar styracifium)	Transplants, seedlings	Sept-March	848 or potted in nursery	Peb-June	HA, SE, FL. HG, SP,	To 37 .	Deciduous, spreading crown, fast growing, full sun	Prefers well-drained soil tolerates many soil conditions, used for furniture
Tulip poplar (Liriodendron tulipifers)1,3	Trensplants	Sept-March	B&B or potted in nursery	Feb-June	HE, MA, SE, HE, HEV, GL	To 16 .	Deciduous, fast growing, full sum	Prefers moist soil
(Querous nigra) ¹⁺³	fransplants, seedlings	Oct-March	848 or potted in nursery	Peb-May	SZ, MA, 7L,	70 21 s	Deciduous, rounded crosm, full sun	Prefers moist soil, fast- Growing, produces abun- dunt, small, bitter acorns
White ash (Frazinus secricans)1+3	Transplants	Sept-March	B&B or potted in nursery	March-June	Eastern and aid-U. S.	To 24 .	Deciduous, upright crown,	Prefers upland well- drained areas, fast- growing
White oak (Quercus alba) ³	Transplants, seedlings	Sept-March	B&B or potted in nursery	Peb-June	HE, MA, SE, HE, GL, HEY, SP,	\$ 8 •	Deciduous, spreading rounded crosm, full sun	Tolerates wide runge of soil and climatic con- ditions, edible scorns
White poplar (Populus albs)	Transplants, cuttings	Sept-March	B&B or potted in nursery	Peb-June	Entire U. S.	To 24 .	Deciduous, sulti-trumked, full sum	Past-growing, exotic, meturalised over much of U. S.

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an benchgrass on demograss of grass partic grass species op stillet aspalus benchgrass b	an benchman an demograms of grass spale spale grass spale sp	Acid Neutral Alkaline		let Moist Dry Fine	Coarse	Food Cover			Benefits
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* Table is coordinated with Table 2.

** SE = southeast; MS = midsouth; SP = south plains; MP = mid plains; MP = north plains; ME = northeast; MN = mid Atlantic; PMV = northeast;
SM = southwest; MN = Midwest.

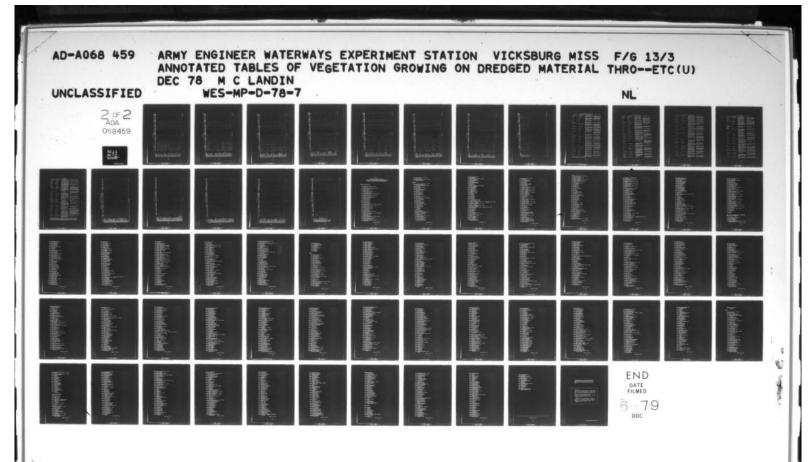
(Sheet 1 of 11)

A STATE OF THE STA	1			æ	Region	:							S	Soil Conditions							Wildl	Wildlife Value			Stabilization
Comon Rade	25	48 s	di	211	W	AS!	741	MEA	NA I		Neutr	Acid Meutral Alkaline	Fresh W	Brackish Se	Saline	Wet Moist Dry	st	IX.	Fine Coarse	erse P	Food Con	Cover Br	Nesting/ Breeding	Esthetics	Soil Benefits
Gracaes (Continued)																									
Pearl millet					•	•				•	`	,	,				,	,	,	,	,	,			
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Seashore paspalum	,	,								`	,	,		,	,	,				,	•		,		,
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Sixveeks fescue	`	1	,	-	,	-	-		-	•	,	,	,				,		,		,				•
Smooth crabgrass	•	1	-	-	-		-		,	•	,	`	,			,	,	,	,	,	•				
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Woolly panic grass	,									`	•	,	,						,	,	,				
Yellow bristlegrass	,	,,,,,	,		,		,	-	•	`	•	,	`					,		,	,				,

(Sheet 2 of 11)

Table 3 (Continued)

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in closes	Common Name		481			VN!						Acid	Neutral	Alkaline			1	131	t Moi	H		00						Soil Benefits
To the control of the	rbs																											
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and the state of t	Arrow-leaf tearthumb	, ,	-	-	1	,		-	,	,		,	,	,	`				•		`	`		•	•			,
unchairmands material ma	Beach pes	, ,			•	,	,	*		-		,	,	,	`	•			•			`	-	•				,
and statements of the control of the	Beach strawberry						,					•	,		•	•			`			`	•	•				
injectorials materials material	Big filaree									•		•	,	,	•				•		•	•		•				
and a state of the	Bird's foot trefoil				•	•						,	,	,	•				`		•	,	•	•				
and a state of the control of the co	Bittersweet nightshade				1	•						-	,		•				•		•	•	•					
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anneals (1) (2) (Continued)	Blackseed plantain	,	-	-	1	-		-	-			,	,	,	•			•	•		•	•	,	•				
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tob total tota	Buckthorn plantain	,	-		`	-		•		,			,	,	`				•		•	•		•				
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(Continue)	Coast deervetch									•			,	•	•					•		`	•	,	•			,
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(Continued)	Common lambsquarters	, ,		,	1	•	-			-	•		,		•				•	•		`		•	•			,
(Continued)	Common mullein	,	-		1	`	-	-		,	•		,	,	-					•	•	`		•	•			,
(Continued)	Comon purstane	,			-	•	-	-		-	•		,	,	•					•		•		•				,
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(Continued)	Comon spikerush	11			-	•	-	-		1	•				•			•	•		,	`	•	•				,
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Continued	Cow pea	,	*		1	•	-	-		,	•	•	,	,	•				•		•	`	•	•				,
da (Continued)	Crimson clover	,	•		-	•	-	-		-	•	,	•	•	•				•		•	`		•	•			,
ab (Continued)	Croton						•			•		,	,	,	•				`	,	,	•	•	`				,
erush (Continued)	Curley dock	,	*		1	•	-	-		-	•	•	,	,	•				,		•	`		`				,
(Continued)	Deerweed									•			,	,	•					•	•	`	•	`				•
(Continued)	Dwarf spikerush	,	-		-			-	,	1	`	,	`	`	•	`		•	•		•	•	•	• •				,
(Continued)	Pilaree Pilaree									•		`	•	`	•				•		•	`		•				



Company						Regi	egionee								Sof.	Soil Conditions							- 1	Wildlife Value	falue		Stabilization
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	Lupine						•				,		•	,	,							•		•			,
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1	Marsh pepper	`	1	-	-	1		-	1	-	-		`	,	,			,			•		•	•			
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1	Musk filaree											•	,	,	•						•	•		•			
1	Marrowleaf vetch	•	-	-		-	-		-	•	-	`	,	,	,				,			•		•			`
1	Modding smartweed	•	-	-	-	-			1	-	-		,	,	,			,	,		•	•		•	,		,
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	Pokeberry	•	-	-		-			1	•		•	`	`	,						•			•			
	Prostrate knotweed	•	,			-	1		1	•	,	'	`	•	•				,								
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(Sheet & of 11)

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	The fame of the	481 901 281	201 201	MEI			1-	leutra.	Alkaline	Presh	Packish	Saline	2			errure Coarse		Cover	Preeding	Value	Soil Benefit
	the Committee																				
	Prostrate spurge															No.					
	Purple mtoodge	,,,,	111	,,	111	'	`	,	•	•			•	,	'	,		•			
	Purple retab	,,,,	111	,,	111			•	•	•				,	•	,	,	•	•	,	,
	Red clower	1111	111		111			•	•	•				,	•	,	•	•		,	`
	Betroot pigment	,,,,	111		111	-	,	•	•	•						•	•	,			•
	Beseding sorten	"					•	,	,	•				,	'	,	,	,			
	River bulrush		,,			•	•	•	,	•			•	,	'	`	•	,	,		
	Saltames balrush	''		•			,	•		•	,	•	•	,	,	,	,	•	•		,
	Saltwort	,	11		,		,	,		•	,			•	•	,		,			,
	See bilite		;		,	-	•	,	•		•	•	,	•	^	•		•	-		,
	See cu	,,,	•		,		,	,	•			•	,	,	`	,		,	,		•
	Seashore lumine			,		,	,	,	,	•	,		,	,	,	,		•			•
	Seaside dock	11	111	,,	11	-	,	,	,	•	•			,	•	•	•	,			
	Seaside goldenrod	111	•		,		,	•	,	•	•				1	,		•	,		
	Sesside plantain			•	,	-	,	,	`	•	,	•	,	•	•	`		•			
	Series lespedss		•		'		•	,	,	`				,	`	`	•	•	,	`	•
	Sheep scered	1111	111	11	111	'	•			`				,	•	•		`			,
	Showy tick-trefoil	11	,,		111		•	•	,	,				,	•	`	•	,			
	Silverleaf croton	,,			,		,	•	,	•	•			,	,	•	`	`			
	Southern bairrash	,,			,		,	,		•	•		•	•	•	`	•	•			,
	Southern regress	"						,	,	•				•	'	•		•	•		
	Boyless		111		111	' '	•	•	,	•				,	•	,	•	•			`
	Spotted barelover		111		111	1	•	,	,	•					,	•		•			,
	Spotted sparp	1111	111	11	111	11	•	,	,						,	•		,			
	Squarestes spikerush	1111	111		111	:	•		,	•			•	•	`	•	•	•			
	Perform	1111	111		111		,	,	•					,	`	`		•		,	
********	Schweinits's sutsedge	•	,,		,,		•	,	,	•			•	,	'	•	•	•			
*******	Theat sentere	1111	111		111			,	,	•					,	•		•	,		
	Tropic crotos	111	•					,	,	•					•	•	,				
	Tellimed				111	11	•	,	,	•					,	`		•			
	Virginia popporved	1111	111		111	•		,	`	•					'	•		•	,		
	Motors ragmed				,	1		,	,	•				,	,	,					
	Wite clove	1111	111		111		•	,	,					•	'		•			,	,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Milto meetelover	1111	111	11	111	,	•	,	,	•					'	•	•	,			,
	M14 has	1111	111	17	111		,	,		•	1				,						
(Continue)	Wild bucketheat	1111	111		111	,		,	•	,						1			THE PARTY	- 1000	
										(Contin	(pan			41.444							

Table 3 (Continued)

													,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-		A 82 12	•	Ter	- Inte			1001		and Other	ther
Common Name	3N 2S	4N 4S	IN du	W	AS	T0	CV SELA	MH	Acid Ne	Neutral Alkaline		Fresh	Brackish	sh Saline		Holst	H	Pine	Wet Moist Dry Fine Coarse	Food	Cover	ood Cover Breeding	Value		Derit
Herbe (Continued)		1	1		1			,																	
ild sensitive pea	11	1	1		-	1	-		,	,	,	,				•	•	•	,	•	`		,	*	
11d stremberry	,,	1	1			1	,		,	,	•					•	•	,	,						
solly eroton	,,	,,,		•					,	,	,					•		•	,	•	,				
bolly indiamyheat		1						,		,	•	•					•	•	,		`				
ellow starthistle				-			1		,	•	•	•				-		•	•	•	•				
Tellow sweetclover	` '		`	•		1			,	,						•	`		`	•				•	
Mile sur Salatin																									
serican bittersweet			•	-		•		,	,	,	,	•				,		•	•	•					
aboo vine	11			•					,	,	•	•				-		•	•	•					
sech sorning glory	' '		`			11			,	,	•		•	`			•		•				,	•	
mon greenbrier	111111	1	1	•		1			,	,						•	•	•	,	`	•				
rossvine	11								,	,	•	•				•		•	,		•				
Mercan	,		•	-			,		,	•	,	,				•			,		•				
ringed cathrier	11111	1	11	-		1	,		,	•	,	•				•		•	,		,				
rost grape			`					,	,	•	,	•				•		`	,	•	•			•	
spanese boneyauckle	,,		,	-	1	1	-		,	,		,				-		•	,	•	•			•	
· ·	' '		-		1	1	,		,	,	,	`				•		•	,	•	•			•	
meelesf greenbrier	11					,			,	•		•				•	`		•		•				
sendine grape	' '	11							,	,		•				•		•		•	`				
ppervine	11	11	1	•	1	-	-	•	,	,	,	•				•	•	•	,		•				
mbrier	11	,	1			1				`	,	•				•	`		•						
mer gripe	11					1			•	,		•				•	•	`	•	•	•				
Supplejack	11								,			•				•			•		,				
irginia creeper	`	,,,,,	,							,	,	•				•	•	•	,		•				
11d bestoo	:									`	,					•		-	,		•				
Shrube and Small Trees				4																					
Merican elderberry	' '	11	1			1				,	,	•				•	•	•	,	-	`		•		
ericas hornbess	11	1	,			-			,	,	,					•	•	-	,	-	•				
erican plus	' '	1	,	-		-			,	,	•	•				•	•	•	•	•	•		•		
Promoted viburian	-									,	,	•				•		•	,	•	,				
Autum olive	-									,	,	•	•		•	•	•	-	•	•	•	,	,	•	
Byberry			1										•			•	•		`			`	`	•	
each plus							1				,		•			•	•		•					•	
Parlery							•										•								
beautybeerry .	10年 年 10年 10年 10年 10年 10年 10年 10年 10年 10	160	1907	DOM:					Ti di		10 m								1	Sec.	The same of		The state of		
Heolor Lesbedeza																,	,			,	,				

(Sheet 6 of 11)

Table 3 (Continued)

	Region					S	il Condition	-	and and and		Porture	1	1411fe	Wildlife Value	Esthetics	Stabilization and Other
Common Name	MSi MMdi VMI ZMI ZMI ZMI ZMI ZMI ZMI ZMI	INA ICV ICV ICT ICT	Acid Neutral		Alkaline	Presh Pr	Brackish Saline		Vet Hoist Dry		Fine Coarse	21	Food Cover	Breeding	Value	
Shrubs and	100															
Small Trees (Continued)			,	,	,	,			•		, ,	•	•			
Black raspberry					. ,	,				,	,	•	•			
Blue brush					. ,	. ,			,		, ,	•	•			
Blue elderberry						. ,	,	,	,	,	, ,		•	,	,	•
Brazilian peppertree							,			,	, ,		•			,
Brever saltbrush												•				
Professioners	, ,,,	, ,	•	,	•	•			•							. `
Bullatomerry		,	,	,	•	,			•							
Men Jupine	•	,	,	,	,	,			•	•	,					
Callifornia Siacaberry		,	,	,	,	,				•	,					
California pucktoria	,,,		,	,	,	,			•	•						
		,	,	,	,	,		,	•		, ,	•	•		,	,
Carolina ash		,,,	. '		,	`			•	,	, ,		•	•	,	,
Carolina rose			,	,	,	,			•		,		•			
Cascara buckthorn	. , , , ,		. ,	,	,	,			•		,		•		,	
Cherry laurel			. `	,	,	,			•	•	, ,	•	•	•	,	,
Chickson plus									,		, ,		•			
Comon buckthorn	,,,						,			,	,		•			,
Comon chokecherry	, , ,										, ,	•	•			
Comon deerberry	""	,,,				. ,			,		,		-	•	,	,
Comon Juniper	,,	,,				. ,			,		, ,	•	•			
Comon sweetlesf	,										,	,	•	,	,	
Crahepple	, ,,	,	•	•						,					•	
Dathoor	,,	,	,									•	•			
Downy serviceberry	,,								,	. ,	,		•	,		
Eastern hophornbeam	11 1111											•	•			
Elderberry (glauca)	•	,									,	`	•			
Elderberry (callicarpa)	•	•	`						,			. `		,		,
Evergreen blackberry	" "	,,,								,	,	•	•	•	,	,
Firethorn	, ,,,	,	•							. ,	,	•	,		,	
Flowering dogwood.	11 111	,,,	•						. '	. ,			•			
Gallberry	",	,	•													
Grav doewood	1111111	111	`	,		,			•		•	• •				
Ground blueberry	, , , , ,		•	,	,	,			•					,		,
Groundsel tree	11 111		,	,	,	•	,	,	•	•				. ,	,	
Halberd-leaved villov	11111111	11111	,	•		,										
Hibiscus	111 111		•	,	•	`										
																Service Indean.
						(Continued)	(P									(Sheet 7 of 11)

				Region	:								Soil Conditions	itions						LIA	diff.	/elue		Stabilization
Common Parts	25	48	di	Mid	MS	75	VIE	-	1 410	H	Acid Heather Albeline	1	11	Sel fac	*	Moisture Les Moisture	1	Tex	Texture	Proof Course	1	Besting	Esthetics	and Other
Shrubs and	11	1	1		1			11							1		1	1						
Sell Trees (Continued)																								
Mighland blueberry	•			•					,			•				•		•	,	•				
Hollylesf cherry							•		•	•	,	•					•		,		•			`
Honey mesquite					•				,		,	•	,				•	•	,		•	,		•
Hooker's willow				•			•		,	•	,	•			•	•			,		,			,
Japanese lespedeza		,	111	:	•	1	,		,	,	•	•				•			•	•	•		`	,
Low blueberry	1			,					,	,		,				•		,	,	,	•			
Melelesf viburnus	11			•						•	,	•				•		•	,	,	`	•		
Marsh elder	, ,		•	,		,			,		,	•	,		•	•			,		•	,		,
Mountain blackberry			•			•				•	•	•				•		•	,	,	•	,		,
Multiflors rose		:	`	;	•		'		,	•	,	•				•			,	•	•	,	•	,
Myrtle out						,			,		,	•	•			•		•	,		,	,	`	
Borthern bayberry			`	•						•	,	,	,			•			,		•	`	,	,
Oleander	•				•	,			,	,	,	•	,			`	`		,		•	`	,	,
Pacific bayberry				•			•		•		,	•	,			•	•	•	,		•			
Pacific dogwood				•			•			•		•				•			•	•	•			
Pacific was sprule				•			`		,	,	,	•	•			•			•		•			,
Pacific villow				•			•		•	•		•			•	•			•		•	•		,
Poison ivy	' '	1	,	-	-	11	,		•	,	•	•				•		•	,	•	•	,		
Possumbay				•		1	,		•	,	•	•				•		•	•	•	•	•	•	
Possumbay viburnum									•	,		•				•					•			
Purple osier willow			•						,	,	,	•			•	•		•	•		•		•	`
Pussy willow			:			•			,	,	,	•			•	•			•	•	`		•	•
Queil brush					•				,	,	,	•	`				•		•		,	,		,
Red alder				•			•		,	•	,	•				•			,		•			•
Red buckeye	111								•	,	,	•				•		•		•	•	`		
Red osier dogwood			,	'	•	-	,		,	,	,	•			•			•	•	•	•	,		,
Riverflat bawthorn				,					,	,	•	•				•	•		,		`			,
Rough-leafed dogwood		-		•					,	,	`	•			•	•		•	•	•	,	,	•	,
Russian olive	11	1	-	-	-	1	-	•	,	•	•	,				•	•		,		,	,	,	,
Rusty blackhaw				•		,			,	,	,	•				•	•		,	•	•			
Selel				'			`		,	,		•				•		,	,		•		,	
Salmonberry				•					,	,	•	,				•			,	•	,		,	,
Saltbush									,	,	•	•	,				•		•					
Salterdar	`	,		•		,		,	,	,	,	•	•			•	•		,		•	,	•	,
Sandbar villov			•			•			,	•	,	•			•	•			,		•	,		

(Speet 8 of 11)

Section of the control of the contro		1	١											מ	STIL CONGILLOUS	1	-	-		1		Mante			Lher
The second part of the second pa					Regi	-euo	-	1	1	1	17	-	-	S	linity	Mois	ture	1	Texture	1		Bestra			enerits
	Compa Rame	281	481	di	2H1	ILUM	741	I MEN		Ac1d	Meutral	Alkalin		티	rackish Saline	Ket Ike	oist D	7	el Coer	의	Cover	Dieedi			
	P .4																								,
	Trees (Continued)						,			,	,	,	,					,	•	-					
	nd blackberry	•			•							,	,		,		•	,	,		•	•			
	and pine		,														,	,	,	•	,	,			,
	seconth oak	•	11				•										,		,		,	,	,		,
						,				*	,	,	•								,	,			,
	toteh broom	•	,		•		,	,		,	,	•	•									The state of the s			
	serp-tooth blackberry																,		,		,				
		•	11	1	-		,	1		,	,	•	•						,		,				,
						,			,	,	,	•	•						N. N.			,	,		,
	tore pine						,			,	,	•	•		,		,		,			•			
	brub verbens	×											•				,		,		•				
	11kg dogwood	•	,	-			•			•		,	TO IN			,	,		, ,		`	`			,
	ille willow				,			,													,	,			,
						,				,	,	,		,			•	-	•						
	ithe elder							,	,	,	,	,		,			,		,		•				,
	sooth suste										. '	,			,		,		,		`	•			
	outhern bayberry	•	-														,		, ,		, ,	•			,
	outhern desberry	•	•				•											,	,		, ,				
	Deriloberry	,	11			,				•															
		•	, ,	,	,		`	11		•	,	•		,					,						,
	quar huckleberry	N. T.						1		,	,	•		,				,	,			•			
	taghorn stanc										,	,							,		•				
	-									. `	•	,				•	,		,		,				
	seep privet										. `	. `					,		, ,				•		
	**************************************	•	•																		,	•			,
	-		11		•			,		•	•	•		,									,		,
		'	-	,	1	1	11	1	-	•	,	,		,			•					,			,
	Artetian boneysuckie									•	•	•		,	,		,	•	•			•	,		. ,
	was buiseche				1	1	1	'	1	,	,	•			,				•						
	horny eleagnue									,	•	,		,					,		•				
	bothache tree																,	,	•		,		,		,
	furbey out	•					-			•							. `	. ,	,						,
	the sprtle		'				•			•	•						. ,		,		,				
	Sectors Machberry					•			•	•	•	•									•				
	Setern chokeberry					•			•	•	•	`		,											
	Annual Annual					•				•	•	,		`											
									,	,	•	•		,			,		•						
	Western buckleberry										,	,		,			,				,	,			
	Wild egple		•														,		,		,	,			
	Wild black current				-	- '		-		•	•						,		•		`	,			
	Wild cherry					`	•			•		2000			STATE OF THE PARTY		,	,	,	Section Section	Service S.			The Later	
	Wild tadigo		'							•	•	,						. ,			,	, ,			,
	Wild wase		1	2			•			•															

				Re	ton				i	X				Soil Conditions						Will	dlife V	alue		
Comon Pase	38	481	SMI GRI	211	MA I	AS I	TO	CV	AN	Acid N	Neutral	Alkaline	Fresh		10	Moisture Wet Moist Dry	Dry	Fine	Fine Coarse	Food Cover	Cover	Nesting/	Esthetics	Soil Benefits
Shrubs and Small Trees (Continued)	bee.								,				1				1							
Vingscale								•		,	,		•				•		,	,				,
Waterberry	11									,	,	,	,			,		,	,	,	,			
Witch base!	11		+	-			,	,		,	,	,	•			•		•	,	,	,			
Taupon	11	•			,	•				,	,	,	,	,		•	•	,	,		,	,	,	
Tellow palowerde								•				`	`	,			`		,		,		,	`
Large Trees																								
American beach	,,			,			-			,		,	,		,	•		,	,	,	,	,	,	,
American sycamore	' '		1	-			,			,	,	,	,			,		. ,	. ,		. ,	. ,	. ,	
Australian pine						•		•					. `						. ,		. ,		. ,	
Black cherry	11		1	,		`				,		,					,	•	. ,	,	. ,	, ,	. `	
Black cottonwood					•	,		•		,	,	,	`		•	,						. ,		,
Rack gus	,,		1	1	-	,	-			,	,	,	,			•	,	,	,		,	,		
Black locust	,		,	•						,	,	,	•			,				,	. ,	. ,	,	,
Black walnut	11	-	•	'			ì			,	,	,	•			-			,		,	,	,	
Risck willow	11			•		•				,	,	,	•		•			•	,	,	,	,		,
Cow out	''					•				,	,	,	•			•		•	`	,	•			
Eastern cottonwood	11	-	1	•						,	,	,	•		`	•		,	,		•	,	,	,
Baters red coder	,,									,	,	,	•			•		•	,	,		,	,	
Battern white pine				,						,	,	,	,			•		•	,		,			
Green sub	' '		-	-		•		,		,	,	,	,		,	,		•	,		,	,		,
Melberry	,,	•					1			,	,	,	•			•		`	,	•	•	,	,	
Moneylocust	11		,	•			,			,	,	`	•			•		,	,		,		,	,
Laurel oak	11									,	,	,	,			•	•	•	,		•			
Live out	,,	,		•						,		,	,	,		•		,	•	,	•	,	`	
Lobiolly pine	,,			•						,	,		,		`	•		•	,	,	,	,	,	,
Longless pine				•	18	•				,			,			•		•	,		,	,	,	,
Mockernut hickory	' '		,	'		-				,	,	,	,			•	,	,	,	,	,	,		
Paper mulberry	11			'		•	-			,	,	,	,			•		,	,		,		,	
Peachlesf villow	,		1						,	,	,	,	,		•	•			,		,			,
Pecan	11		,						119	,	,	,	•			,		,	,	,	,	•	,	
Persiano	' '		,	•		•	•			,	,	,	,			,	-	,	,	,	,	,	,	
Pignut hickory	11		,	,		•	•			,	,	,	,			,	,	,	,	,	,	,	,	
Redbey	11			•		•				,	,	,	,			,		,	,		,			
Ned maple	' '			'		•	,			,	,	,	,		•	,		,	,	,	,	,	,	,
Red mulberry	,,			"	100	•	,	C.Y		,	,	,	,			,		•	,	,		September 1	,	Total Parket
Miver birch	11			•			`			,	,	,	`		,	,		,	,		•			,
													(Continued)	(par										

(Sheet 10 of 11)

			Region					10 100		Soil Conditions	dition	-	1	1	-	1	House House	West ine	Pathetics	
Common Name	4SI 3SI	IND IND	****	TAI ASI	ICV IMMA	Acid	Keutrel .	Alkaline	Fresh	Selinity Brackish	Saline		Wet Moist Dry		Tine Coarse		Food Cover	Breeding	Value	Soil Benefits
Large Trees (Continued)															,		•	,	,	•
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White poplar	111	,,		11	1111	, ,	,	,	•							200				

Species	Recommended propagules	General collection, handling, and planting techniques	Reserve
Alkali bulrush	Transplants ¹ , tubers	Dig plants; divide; replant on site at same depth or pot for holding in nursery or greenhouse.	Seeds frequently esten by waterfowl and other birds; used for soil stabilization; prefers fine soils.
Arrow arum ²	Transplants, seeds	Dig plants; separate; replant at same depth on the site or por for holding. Cather seeds when mature; store in freshwater at 1-3°C; broadcast on site and rake into soil.	Primarily a good soil stabiliser, although seeds are infrequently eaten by waterfowl and muskrats use it for lodge material. Potential pest plant.
Seek ruen ²	Seeds	Gather seeds when mature (July to September); store in freshwater at 3°C; broadcast on site and rake into soil.	Seeds eaten by waterfowl primarily.
loggar's ticks ²	Seeds	Gather seeds when mature (July to September); store dry at 5°C; broad- cast on site and rake into soil.	Good food source for songbirds, game birds, and chicks. Potential pest.
Big cordgrass ²	Transplants, seedlings	Dig young plants from natural stands; separate; replant on site at same depth or pot for holding. Germinate seeds and grow seedlings until ready for planting (3-6 months).	Excellent soil stabilizer in low, brackish marshes. Salinity prevents this species from competing with smooth cordgrass. Seeds maten by all kinds of birds; rodents est young tender foliage. Fotential peat
Sigelow's glasswort 2	Cuttings, rootstock	Collect 5-15 cm cuttings of top shoots and broadcast in wet area on the site. If must be stored, cuttings must remain moist. Dig rootstock; replant on site at same depth.	Low tidal area soil stabilizer. Tol- erates fairly high salinities. Easily propagated. Poor source of wildlife foods. Occasionally used by nesting colonial seabirds.
Slack mangrove ²	Seeds, seedlings	Collect seed pods when mature (summer and fall); plant whole pod upright in soil with stem end up and out of the soil. Dig seedlings from natural stand or grow from seed pods.	Excellent soil stabilizer in south Florida. Frequently occurs on dred- ged material islands and used by colonial nesting wading bird specie. Tolerates to 40 ppt salinity.
black needlerush ²	Transplants	Dig clumps; divide into sections with a cutting device; replant on site at same depth or pot for holding.	Good high marsh soil stabilizer. Will not tolerate extended inunda- tion and naturally occurs on tidel creek banks and high spots in the marsh. Seeds eaten by birds and small animals.
ladderworts	Cuttings	Collect quantities of cuttings in buckets of water by scooping plants out of natural stands (in water); transfer to standing water on site.	Good waterfowl food source, espec- ially for dabbling ducks. Potential pest plant in reservoirs.
Broadleaf arrowhead 2	Transplants	Dig clumps; separate individuals; replant on site or pot for holding.	Good waterfowl food source; good cover for wildlife; muskrat food.
Bulrushes 2	Transplants, tubers	Dig plants; divide; replant on site or pot for holding. Dig tubers; separate; cut off top shoots if present; replant on site or pot for holding.	Excellent waterfowl and songbird food (seeds); foliage eaten by muskrats; used for cover and breed- ing and nesting by many species.
Burreed 2	Transplants	Dig plants; divide; replant on site or pot for holding.	Seeds infrequent source of wildlife food.
Buttercups	Cuttings	Collect quantities of cuttings in buckets of water by scooping plants out of natural stand(in water); transfer to standing water on site.	Good waterfowl food source. Potential pest plant in reservoirs.
Buttonbush ²	Transplants, seeds	Dig small plants (large seedlings); transplant to site or pot for holding. Collect seeds in August-September; store seeds in freshwater at 5°C.	Seeds good source of food for water- fowl and other birds, insects, beavers, and muskrats. Provides cover and nesting habitat for birds
Chufa 2,3	Tubers	Dig tubers when mature (/uly-Sept.); separate from other plant material; store moist but not wet at 5°C; broad- cast on site and rake into soil. Tubers as very small and may be treated as seeds	Excellent food source for waterfowl, turkeys, deer, wild boar, songbirds; highly productive plants may produce hundreds of tubers per plant. Seeds, tubers, foliage all relished.
Common reed ²	Transplants, rootstock	Dig plants; divide; replant on site or pot for holding. Dig rootstock; separate into sections with at least one growth point, plant on site.	Used for nesting by songbirds, marsh birds, and waterbirds. Stabilizes soil; rapid growth with tall rank form. Definite pest plant.
Common threesquare	Transplants, tubers	Dig plants, divide, replant on site at same depth or pot for holding. Dig tubers; divide; cut off top shoots if present; replant on site.	Good source of food for waterfowl, muskrats, and nutria. Used for soil stabilization.
Delta duckpotato ^{2,3}	Transplants	Dig plants, separate individuals; replant on site at same depth or pot for holding.	Excellent waterfowl food source; good soil stabilizer; only grows well on fine textured soils.
Dock ²	Seeds	Collect seeds when mature (May to July); stora dry at room temperature or less; plant broadcast on site and rake into soil.	Good food source for songbirds(seeds Hardy species that 1s good soil stabilizer.
Dotted smartweed ²	Seeds, cuttings	Collect seeds; store dry at room temperature or less; broadcast on site and rake into soil. Take cuttings from natural stand; broadcast on wet area on site (not standing water).	Good soil stabilizer; good cover for ducklings; seeds ea'an by waterfowl, muskrats, and deer.

i Transplants include plugs, groups of individuals, very large weiling, and large whole plants.

2 Known to occur on dredged material.

3 Commercially available.

Table 4 (Continued

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
Duckpotato 2	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Excellent food source for waterfowl.
Duckveeds ²	Whole plants	Collect buckers of plants from natural stand in water; place whole plants in standing permanent water on sits.	Excellent food source for waterfowl, especially wood ducks. Good cover. In deep south can be pest in atanding water that should be kept open.
Kel grass ²	Transplants	Dig clumps with coring devices; replant in shallow seawater with a minimum of current and wave action.	Good soil stabilizer; food source for diving ducks; provides cover for marine organisms.
European glasswort ²	Cuttings, rootstock	Take 5-15 cm cuttings from top shoots; broadcast on wet area of site. Dig root- stock; divide into clumps; replant on site at same depth.	Used primerily for soil stabilization. Foor wildlife food use; occasionally used by nesting colonial seabirds.
Fimbriotylie ²	Transplants, seeds	Dig plants; separate individuals; re- plant on size at mame depth or pot for holding. Collect seeds when mature (July-Sept.); score dry; broadcast on site and rake into soil.	Pair food source for songbirds and occasionally for waterfowl.
Foxtail grasses 2	Sprigs, seeds	Dig young plants; replant as sprigs on site at same depth or pot for hold- ing as transplants. Collect seeds when mature (June-Ogt, depending upon species); store dry at 5°C; broadcast on site.	Good source of food for most birds, browsers and grazers, rodents. Cover for many wildlife species.
Frankenia	Transplants	Dig plants; separate individuals; re- plant on site at same depth or pot for holding.	Soil stabilizer; poor source of food but some use as cover by wildlife.
Frog bit 2	Seeds	Collect seeds when mature (July-Sept); store dry at room temperatures or less; broadcast on site and rake into soil.	Good seed source for songbirds; cover for smell animals and birds; some use for stabilisation.
ulant rees 2	Souce, transplants	Collect seeds when mature; store dry at room temperatures or less: broadcast on site and rake into soil. Dig plants; divide; replant on site or pot for holding.	Hardy plant; good seed soutce for wild- life: used for soil stabilization.
Groundsel tree 2	Soedling*	Dig seedlings in natural stands; at least 0.3-0.5 m is minimum height for best survival; replant on site at ease depth or pot for holding.	Excellent cover and nesting/breeding species; used frequently by colonial nesting wading birds on dredged material islands. Poor food source.
Hardstem bulrush ²	Transplants, tubers	Dig plants; divide; replant on site or pot for holding. Dig tubers, divide from other plant material; cut off top shoots if present; plant on site at same depth.	Excellent seed source for birds; hardy species; used by muskrats and for soil stabilization.
Horned pondweed	Cuttings, rootstock	Gather plant material from standing water; place on site in permanent standing water areas. Big rootstock from shallow water areas where possible; plant intact on site.	dabbling ducks; good sediment stabilizer.
Horeetails 2	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Poor food source; only use is soil stabilization.
Japanese millet 2,3	Souds	Buy seeds from commercial seed source.	Excellent upland and marsh bird food; relished by waterfowl; eaten by turkeys, taccoons and other small animals, deer; Used in game management as food plot source
Ledysthumb ²	Cuttings, seeds	Take cuttings 3-15 cm from top shoots; broadcast on wat area of site; rake into soil. Collect seeds when mature; store in fresh water; broadcast on site and rake into soil.	Excellent source of food for waterfowl and upland game and songbirds.
Lisard's tail 2	Transplants, seeds	Dig plants; separate individuals; re- plant on site or pot for holding. Collect seeds when mature (June-Aug.); store in fresh water; broadcast on site and rake into soil.	Pair food Source; used for stabilization in intermittent pond areas.
Lobelia	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Fair food source; possibly used for stabilization,
Lotus	Seeds, rootstock	Collect seeds when mature (Aug-Oct.); remoye from pode; store in fresh water at ⁹ C; broadcast in shallow water on site. Dig rootstock when water is very low (late summer, fall); plant in shallow water on site.	Pair food source for seterfoul; relished by wild boar (roots); excellent cover for ducklings; potentical peer in standing water and shallow reservoirs.
Lyngbye's sadge ²	Transplants, seeds	Dig plants, separate individuals; replant on site or pot '80r holding. Collect seeds when mature (July-Sept.); store dry at room tempetature; broad- cast on site.	Good food source for waterfowl and other birds; good cover for many species.
Mannas grace 2 (G. acutiflora)	Soeds, optige	Collect seeds when meture; store dry at room temperature or lean; broad- cast on site. Dig young plants for aprigs; replant on site or pot for holding as transplants.	Excellent seed source for many bird species; foliage esten by email and large animals; good cover.
Monne grace 2 (G. fluitane)	Souds, sprigs	Same procedures as above.	Excellent seed source for many bird species and other wildlife, good cover. Grows in wetter areas than above species.

(Sheet 2 of 5

Table 4 (Continued

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
Marsh elder ²	Seedlings	Dig seedlings in natural stands near parent plants; separate individuals; replant on site or pot for holding. Seedlings should be 0.3 m tall minumum.	Excellent cover species for birds and small animals; used by colonial mesting wading birds for mesting substrate. Potential pest plant.
Marsh habiscus ²	Seeds, tranplants	Collect seeds when mature (Aug-Oct); store dry at 5°C; plant on site at least 3-5 cm deep. Dig plants, re- plant on site or pot for holding.	Good cover for birds, sunning turtles; grows on banks of streams and ponds, in ditches; good soil stabilizer.
Marsh pepper ²	Cuttings, rootstock	Take 5-15 cm cuttings from top shoots; broadcast on wet area of site; rake in- to soil. Dig rootstock; divide into sections; plant in wet area of site.	Excellent seed source for waterfowl and other birds; foliage bitter to browsers; good cover and soil stabilize
Marsh smartweed ²	Cuttings, seeds	Cuttings: same as above. Collect seeds when mature (June-Sept); store or plant immediately on site; rake in soil.	Excellent seed source for waterfowl and other birds; good cover for many wildlife species.
Mud plantain 2	Cuttings	Take 5-15 cm sections from top shoots; replant in mud and wet areas on site taking care to bury portions of cut- tings in soil.	Good soil stabilizer in intermittent ponds and streams.
Nodding smartweed 2	Seeds	Collect seeds when mature (June-Sept); store in fresh water at 5°C; broad- cast on site; rake into soil.	Abundant seed source for upland and waterfowl birds; grows in drier soils than most smartweeds; potential pest.
Nutsedges ²	Tubers, rootstock	Dig tubers in late summer and fall; divide; plant on site or pot for using as transplants. Dig rootstock; divide into sections; plant on site, same depth.	Excellent food source for most wild- life, especially chufa and red-rooted sedge; commercially available; poten-
Olney's threesquare 2	Transplants, tubers	Dig plants, separate individuals; plant on site or pot for holding. Dig tubers; separate; plant on site at same depth.	Excellent food source for waterfowl, muskrats, nutria, small animals. Good soil stabilizer.
Orache ²	Seeds	Collect seeds when macure; store dry at room temperature or less; broad- cast on site; rake into soil.	Good source of seeds for birds and rodents; good soil stabilizer.
Pacific cordgrass ²	Transplants, sprigs	Dig young plants from edge of marsh; plant at same depth immediately as sprigs, or grow in pots and transplants into site as larger plants. Growing from seeds not recommended as seeds have very low viability rate.	Only low marsh soil stabilizer on west coast that tolerates both high salinities and strong tidal action. Good soil stabilizer; good cover; very slow growth.
Red mangrove ²	Seeds, seedlings	Collect seed pods when mature; plant whole pod upright in soll with stem end up and out of the soil. Dig seed- lings from natural stand or grow from seed pods.	Excellent soil stabilizer in south Florida. Frequently occurs on dredged material islands and used by colonial nesting wading birds for nesting. Tolerates sea-strength salinities.
Reed canary grass 2,3	Seeds	Buy seeds from commercial seed source.	Excellent soil stabilizer; seeds good wildlife food source; used to dewater and filter waste water.
Reed grass ²	Seeds, sprigs	Collect seeds when mature(July-Sept); store dry at 5°C; broadcast on site. Dig young plants to use for aprigs; separate individuals; plant on site or pot for growing as transplants.	Excellent seed source for birds; grazed heavily by mammals and rodents. Good soil stabilizer.
Reed manna grass 2	Seeds, sprigs	Same procedures as above.	Same value as shown above.
Rice cutgrass 2	Seeds, sprigs	Collect seeds when mature (May-July); store in fresh water at 5°C; broad- cast on site and rake into soil(in wet areas). Dig young plants; separate individuals; plant on site at same depth in wet areas	Good seed and foliage food source for many wildlife species, especially waterfowl and marsh birds. Good soil stabilizer of banks.
River bulrush ²	Rootstock, transplants	Dig rootstock, divide into sections; plant at same depth on site. Dig plants; separate individuals; trans- plant to site or pot for holding.	Used frequently by nesting waterfowl and marsh birds; seed good food source for many widdlife species. Good soil stabilizer.
tushes ²	Transplants, rootstock, seeds	Dig plants; separate individuals; transplant to site or pot for holaing. Dig rocutsock; divide into sections, plant at same depth on site. Collect seeds when mature (luly-Oct.); store in fresh water at 3°C; broadcast on site; rake into soil.	This group of plant species excellent for waterfowl, small animal, other birds' food; used as neating substrate by waterfowl and marsh birds; good soil stabilizers; hardy plants.
Saltgrass 2	Sprigs; rhizomes	Dig young plants; divide into sections; plant on site or pot for holding. Dig roots; divide rhizomes into small sections; plant on site; rake into soil.	Excellent soil stabilizer; grows well in high brackish marshes; used as lodge material by muskrats; seeds fair food source, but foliage poor source.
Saltmareh aster ²	Seeds	Collect sweds when mature (July- Sept); store dry at room temperature or less; broadcast on site; rake into soil.	Good soil stabilizer in high coastal marshes.
Saltmareh bulrush ²	Transplants, tubers	Dig plants; divide; plant on site at same depth or pot for holding; Dig tubers; separate tubers; cut off top shoots if present; plant on site at same depth.	Excellent food source for waterfowl and muskrats, nurcia, other small animals. Good cover; good soil stabilizer; used by muskrats for lodge material.
		(Continued)	(Sheet 3 of 5)

Species	Recommended propagules	General collection, handling, and planting techniques	neuron Remarks
eltmorph cattail 2	Transplants, rootstock	Dig plants; separate individuals; plant on site at same depth. Dig roots; separate; cut off top shoots if present; plant on site.	Good soil stabilizer in brackish soils. Occurs in ditchem intermittent ponds, primarily on coasts. Low food value; fair cover.
altmarch jaumes	Transplants	Dig plants, separate individuals; plant on site at same depth or pot for holding.	Pair soil stabilizer on west coast in high brackish marshes.
altmendow cordgrams 2	Transplants, sprige	Dig plants; divide into clumps; plant on site at same depth or pot for holding. Dig young plants; separate; plant on site at same depth.	Excellent soil stabilizer in brackish marshes; also used in dune stabilization on Atlantic coast. Seed production often poor; low food value; some cover value.
av grass of the state of the st	Sprigs, seeds	Dig young plants; separate individuals; plant on site or pot for holding. Collect seeds when mature (July-Sept); store in fresh water at 5°C; broadcast on site; rake into soil.	Species very site specific; occurs only in south Florida. Will not tolerate high nutrient levels. Good soil stabilizer; good cover; seeds eaten by some wildlife.
2			
(L. carolinianum)	Seeds	Collect seeds when mature(July-Aug); store dry at 5°C; broadcast on site; rake into soil.	Fair soil stabilizer; cover. Low food value. Some nesting substrate value.
iea lavender (L. vulgare)	Seeds	Same procedures as above.	Same values as above.
Sea ox-eye 2	Transplants, seeds	Dig plants; separate indivuduals; plant on site at same depth or pot for holding. Collect seed heads when mature (July-Oct); store seeds in fresh water at 5°C; plant on site; rake into soil.	Excellent soil stabilizer; grows in high brackish marshes and on shores. Low food value; some cover and nesting value.
Sea purslane 2	Seeds	Collect seeds when mature: store dry at room temperature or less; plant on site; rake into soil.	Fair soil stabilization value; low food value; some seed value as food. Some cover use.
Seaside arrowgrase 2	Transplants	Dig plants, divide into individuals or clumps; plant on site at same depth or pot for holding.	Excellent soil stabilizer in brackish tidal marshes in Pacific northwest; some cover value; low food value.
Sedges ²	Transplanta, seeds	Dig plants; separate into clumps or individuals; plant on site or pot for holding. Collect seeds when mature (June-Sept); store dry at 5°C; broad- cast on site; rake into soil.	This group of species far-ranging and widely varied. Usually excellent seed value for wildlife; also good cover. Prolific plants.
Shoal grass 2	Transplants	Dig plugs with coring device in water at low tide; plant at site immediately at same depth.	Propagules must be stabilized to prevent tidal scour. Good cover value for marine organisms; good sediment stabilizer.
Slough grass 2	Transplants, seeds	Dig plants; divide into clumps or individuals; plant at same depth on site or pot for holding. Collect seeds when maturg (July-Sept); store in fresh water at 3 °C; broadcast on wet site area.	Good food value for waterfowl and other seed-eating birds; foliage eaten by small animals. Good soil stabilizer.
Slough sedge 2	Transplants, seeds	Dig plants; separate into clumps; plant on site at same depth or pot for holding; Collect seeds when mature (July-Oct); store in fresh water at 5°C; broadcast on wet site; rake into soil if necessary.	Excellent wildlife seed source; foliage also eaten. Good soil stabilizer.
Smartveeds 2	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; broadcast on site; rake into soil taking care to cover parts of cuttings (site should be wet). Collect seeds, store in fresh water or dry depending on species; broadcast on site; rake into soil.	Excellent group of plants for wildlife value seeds readily consumed by waterfowl and many other birds and small animals. Good soil stabilizers.
Smooth cordgrass 2,3	Sprigs, transplants	Dig young plants, separate individuals; plant as sprigs on site or pot to hold as trasplants. Dig transplants from natural marsh or grow from seeds; plant on site taking care to cover all roots.	Best soil stabilizer of low salt marshes on east and gulf coasts. Used extensively for stabilization and marsh creation projects. good cover value; good food value. Tolerant of tidal inundation for long periods.
Soft rush 2	Transplants	Dig clumps; divide into sections with cutting device; plant on site at same depth or pot for holding.	Persistent high marsh species; good cover value. Some seed value, but foliage inedible Known pest in pastoral areas.
Softstem bulrush 2	Rhizomes, cranaplanta	Dig roots; divide rhizomes leaving at at least one growth point on each; plant on site 2-5 on deep. Dig plants; divide into sections; plant on site or pot for holding.	Excellent soil stabilizer of fresh water coastal and interior marshes. Good seed val for wildlife. Used as cover and nesting material by waterfowl and other wildlife.
Southern pulrush	Rhizomes, transplants	Same procedures as above.	Same values as above, except that this speci- does not occur as extensively as softstem bulrush, and grows much larger and robust.
Southern smartweed ²	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; broadcast in wet area on site; rake or place cuttings into soil. Collect seeds when maturg (July-Oct); store in fresh water at 5°C; broadcast on site; rake into soil.	Excellent food source for waterfowl and mart birds. Prolific growth habits; forms dense rall stands. Good cover value.
Southern cutgrass 2	Seeds, sprigs	Collect seeds when mature(May-July); store in fresh water at 5°C; broadcast on wet site, rake into soil if necessary.	Excellent seed value for waterfowl and other birds; foliage eaten by small animals and grazers when tender and young. Good soil sto
		(Continued)	(Sheet 4 of 5)

Table 4 (Concluded)

Species	Recommended propagules	General collection, handling, and planting techniques	All Search Control of
Spatterdock 2	Transplants	Dig plants; separate individuals; plant on site at same depth or put for holding.	Good waterfowl food; good soil stabiliser.
Spikerushes ²	Transplants	Dig plants; divide into clumps; plant on site at same depth or pot for holding.	Excellent soil stabilizer; fair waterfowl food.
Spirocella 2	Whole plants	Scoop buckets of plants from standing water; trans er to standing water on site.	Good waterfowl food, especially wood ducks.
Sprangletop ²	Sando, apriga	Collect seeds when mature(summer,fall); store dry at room temperature or less; broadcast on site; rake into soil. Dig young plants; plant on site as sprigs.	Excellent seed source for wildlife; good soil stabilizer; used for cover.
Sweet flag	Transplants	Dig plants; divide individuals; plant on site in high march at some depth.	Good soil stabilizer; fair wildlife value; potential pest plant.
Tufted heirgrass 2	Transplants, sprige	Dig plants; divide individuals; plant on site or pot for holding. Dig young plants; plant as sprigs on site.	Excellent low morsh species for Pacific morth- west; prolific growth; good cover and fair food wildlife value. Good soil stabilizer.
Turtle grass ²	Transplants	Dig clumps with coring device from water at how tide; take care to be sure that at least one growth point is in each clump or will not reproduce: plant on site in the water.	Excellent cover and wildlife value; good cover for marine organisms. Species susceptible to environmental changes by man; rare in some areas
Walter's millet 2,3	Seeds	Buy from commercial seed source.	Excellent food value for waterfowl and other wildlife such as raccoons, turkey, deer, musk-rats. Good temporary soil stabilizer.
Mater hemp ²	Seeds	Collect seeds when mature; store in fresh water at 5°C; broadcast in wet area on site; rake into soil if nec.	Good seed source for wildlife; fair soil stabilizer.
Water hyesop	Cuttings, oprigs	Take 5-15 cm cuttings from top shoots; plant in mud om site. Dig young plants; sivide, plant on site in wet ares.	Good soil stabilizer; fair wildlife food.
Mater lilies 2,3	Rootstock	Dig toutstuck in late number and fall when water levels are low; transplant to shallow water on site.	Good cover for ducklings; some food value. Excellent sediment stabilizer; potential pest.
Watermilfoils	Cuttings	Remove buckets of segments of plants from standing uster; transfer to standing water on site.	Excellent dabbling duck food; good cover. Potential pest in standing water and reservoirs
Water nymphs	Cuttings	Same pre stures as above.	Same value as above.
later plantain ²	Transplants	Dig plants; divide individuals; plant on site at same depth.	Good food source for wildlife; fair soil stabilizer.
deter shield	Rootstock	Dig roots in shallow water in late summer and fall; transfer to standing shallow water on site.	Good cover value, good sediment stabilizer.
Water smartweed ²	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; plant on site in wet area taking care to bury part of cutting. Collect seeds when mature(July-Sept); store in fresh water at 5°C; broadcast on wet site.	Excellent waterfowl food; good cover Excellent sediment and soil stabilizer.
Water willow	Transplants	Dig plants; divide individuals; plant on site at same depth.	Fair soil stabilizer; low wildlife value.
hite mangrove ²	Seeds, seedlings	Collect seeds when mature; plant immed- iately on site. Dig seedlings from natural stand; plant on site.	Excellent soil stabilizer; good cover; low food value; used by nesting birds.
didgeongrass ²	Cuttings	Remove buckets of segments of plants from standing water; transfer to standing water on site.	Excellent waterfowl food; grown by waterfowl managers for attracting waterfowl.
dild celery	Whole plants	Remove whole plants from standing water; transfer to standing water on site.	Excellent cover value; harbors many invertebrat fed on by wildlife. Shades out aquatic plants; pest in Florida and deep south in some aveas.
vild rice ²	Sprigs, seeds	Dig young plants, divide individuals; plant in shallow water on site. Collect seeds when mature; plant on wet site.	Low tolerance for pollution; must have fine- textured soils in slow-moving water. Excellent wildlife food, good soil stabilizer.
Willows ²	Cuttings	Take 10-30 cm cuttings from dormant trees (winter months, early spring); plant on site with butt end 2/3 in soil.	Excellent soil stabilizer of stream and pond banks. Good cover and food value for songbirds Very fast growing, potential pest.
Holffias	Whole plants	Remove buckets of plants from standing water; transfer to standing water on site.	Excellent waterfowl food; good cover value.
Yallow flag	Transplants, rhizomes	Dig plants; divide individuals; plant in high marsh on site. Dig rhizomes; divide keeping one growth point on each rhizome; plant shallowly on site.	Good soil stabilizer, low wildlife value: showy flowers.

(Concluded)

Sources of information used in the preparation of this table and Table 5 came from unpublished data by the author (Landin) and the following references: Adams (1963), Barbour and Davis (1970), Britton and Brown (1970), Brockman (1968), Brooms et al. (1973), Burkhalter et al. (1974), Chapterock (1970), Correll and Johnston (1970), Duncan (1974), Eyles and Robertson (1963), Fassett (1960), Harris and Marshall (1960), Hitchcock (1950), Motchkiss (1970), Motchkiss (1970), Kadlec and Wentz (1974), Long and Lakels (1971), Martin et al. (1951), Mason (1969), Palmisson (1972), Radford et al. (1968), Salyer (1949), Saneca (1972), and Woodhouse et al. (1972).

(Sheet 5 of 5)

Table 5 Selected Marsh Species and Their General Growth Requirements and Characteristics

2000 1 TENNESS CO.		1				1				16		Marsh Moisture Conditions	sture.	Condition	919	3	Utilditte Value	alle			8	110
	Region		11	PH	11	8 ,	Salinity			1 1		Tidel	100	High	Practich	1 5	Cover	Nesting/	Morphology Perennial Annual	Potential Nuisance	101 Sta	Stabili-
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• \$4 - south Atlantic; MA - north Atlantic; F7 - peninsula Florids; GC - gulf coants; WC - west coast; I - interior.

Marie Mari	7020 8 2020													Marsh Moisture Conditions	isture	Condit	tons	1					
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		-		1			Soil Condition	ditions		Terr			Tidel Low High	3	High	-	-		Nesting/	Morphology	Potential	
			2	11	Hd	1 Albaline	Fresh	Brackish	Saline	Fine Coarse		Water	Los High	Fresh	Fresh	Brackish	Food	Cover	Breeding	Perennial Ann		section
Species	SI -	4) Mi ~ Oi ~ d) Ni	AI >	1									,			,	•	,		,		•
Olhey's threesquare																						
Orache	,		,		, ,	,	•	,			,		•									•
(Atriples patula)								,	,	,	,		,				,	`		,		,
Pacific cordgrass																						
ecific glasswort			•	100	, ,	,		,	,	,	,		'					•		,		
(Salicognia pacifica)			,		,		,	,		,	,		•				•	•	,	,		,
Pacific sedge (Carez obsupta)			2													,	,	,	,		,	,
Panic grasses		,,,,,,	, ,		,	,	,	,		,	,			•								
(Panicus spp.)	,	,,,,,,	,	,	,	,	,	,		,	,		•		•	`	•	`	,	,	,	`
(Paspalue opp.)							,			,	,			`	•		•	•		,		,
Pennsylvania seartweed		,,,,	,		,																	
Pennysorts	•	,,,,,	1		, ,	,	,	,		•			,	`	,	,		•	,	,		
(Bydrocotyle spp.)	,	, ,,,,	,	,	,		`			,				•			`	`	,	,	,	,
(Pontaderia cordata)			N.														,	,		,	,	
Postbeeds	•	,,,,,,	,		,	`	`															
Prairie cerderass	•	, ,,,,	,		, ,	,	,	,		,	,					•	•	`	`	,		
(Spertine pectinate)						,			,	,	,	,	,					•	,	,		`
(Thisophore mangle)																	,		,	,		,
Reed comery grass	•	,,,,,,	1	•	, ,	,	•			`												
(Phalaria arundinacea)	`		11	•	, ,	,	`				`				`		`	`	,	,		,
(Calemagrostis canadensis)		,,,,,	1	,	,	,	,			,	,				,		,	`	,	,		•
(Clycerie grandis)											,			,			,	,		,		•
Rice cutgraus (Learnia prezoides)	•	,,,,,	'		,		•					•										
River bulrush			`	' '	, ,	`	•			•	,	,		•	`			•	,			
Scirpus fluvistilis)	`	,,,,,,	'		, ,	,	`	,		,	,		,		•	`	•	,	,	,	`	•
(Juncus spp.)	,	, , , ,	,	,	,	`		,	,	,	,		, ,				`	`	,	,		,
(Distichlis spicate)										1								,		,		,
Saltmersh aster	•	'			,	`																
Saltmersh bulrush	•	,			, ,	,		`	•	,			,			,	•	•	,	,		•
Saltmarsh cattail	•	1			, ,		,	•		,	,		`		,	•		`	,	,		,
(Typhe enguetifolis					, ,					,	,		•					•			Section Section	,
(Jaumes catnosa)								The second					,				,	,	,	,		,
Saltmandow cordgrass (Sparting patent)	,	,			,			•											THE PARTY			

							S	Soil Conditions	itions					Marsh Moisture Conditions Interior	ture C	Interio		WEI	Wildlife Value	alue			Soil
	I VS	Kegion*	ion*	1		Hd	Allea line	Fresh	25	Sel fine	Texture Fine Coarse		Ing Tares	Tidel	Los Los	High	Brackish	1 2	Cover		Perental Annual	Potential	Stabili-
Species	1	11	01	1		-	-							-	1						1		,
(Cladium jamaicense)																4							
See Lavender	•	1111	•		,	•	,	,	,		,	,		•					`		•		,
(Limonium carolinianum)																							
(Limonium vulgare)	•						,																
Sea ox-eye	•	`	•			•	,			`	,	,	`	,					,	•	,		`
See purslane	•	1111			•	,	,	`	,		,	,		`					•	`	,		`
Seaside arrowgrass		•				,	,	`	`	,	,	,	,	`	•	`	`		,		,		`
Griglochin maritima Sedges	`	,,,,,,		:		`	,	`	,		,	,		`	`	`	,	`	,	`	,		,
(Carex app.) Shoal grass	`	•	;			,	`			,	,	,						•	`		,		`
Slough grass		•	,		,	`		•			,	,				`			,		•		`
Slough sedge				1		•		`			,	,			•	`		`	`	`	,		,
Smartweeds	`	111111	`	1	`	•	`	`			,		,		•	`		`	`	`	,	`	,
Smooth cordgrass	•	11111		,	•	•	`		,	•	,	,	,					`	•	,	,		,
Soft rush	•	•	11	`	•	,			,		,					•		•		`	,	`	•
Softstem bulrush	`	,,,,,,	`	1	•	•			`		,				`	•		•	•	,	,		,
Southern bulrush	•	1111	•	,					`		,	,			`	•		•	•	•	`		,
Southern seartweed	`	•	:	`	•	`			`		`	,			•	`		•	`		`		`
Southern cutgrass	`	,	,,	•	•	`	`		•		,				`			•	,	,	,		`
Spetterdock Gueber Jutane	,	111111		1		`			`		,				`	`		•	`		,		,
Spikerushes	,	,,,,,,	-	1		•	`	`	,		,	,		`	•	`	`	`	`		,		
Spirodella (Spirodella solumbias)	•	,,,,,	`	1	`	`		,			,		,					•	•		,	`	•
Sprangletop (Leptochlos feerfcularia)	•				•	,		•				,				`		•	•	•	•		,
Sweet flag	,			•		•		`								•					,		,
Tufted hairgrass (Deschampsis caspitoss)				1		•	,	`	`		,	,	,	`	•	`			`	`	`		
Turtle grass (Thalassia testudinum)	,	1				,	`			,	,	,	,					•			,		•
Malter's millet (Echinochios walteri)	•	1111		`	•	`	,	,			,	,				`		•	,		`		`
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Table 5 (Concluded)

	1	1		'			Sott	Condit	Suo		1	1	Stand-				iteh		3	Idlife V	Wildlife Value Mesting/	Morphology		Stabili
Species	AM	301	ON	121	Acid Heutral	al Alkeline	Ifne Pro	Se Pr	Selinity Selinity Selinity Selinity	Saline	The	Fine Coarse		Los High		Tresh	Fresh	Brackist.	100	Cover		Perennial Annual	al Muisence	zetion
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cope caroliniana)	1	,			`			,				•	•							`		`	`	
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prograss	:	-			•				,			•	`	`					`	`		,		
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Willows	,	-	-		•			,			•	`	•			`	•		•	`	•	,	•	`
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Vellow flag					9 1			,			•	`					`			`		,		-
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Table 6

Plant Species Identified and/or Collected on Dredged Material Islands and Sites by Scientific Name, Authority, and Common Name

FERNS AND THEIR ALLIES

Athyrium filix - femina (L.) Roth

lady fern

Athyrium thelypteroides (Michx.) Desv.

silvery fern

Botrychium neglectum Wood

grape fern

Botrychium virginianum (L.) Scv.

rattlesnake fern

Dennstaedtia punctilobula (Michx.) Moore

hay-scented fern

Dryopteris austriaca (Jacq.) Woynar

mountain wood fern

Dryopteris thelypteris A. Gray

marsh shield fern

Equisetum arvense L.

field horsetail

Equisetum hyemale L.

scouring rush

Equisetum palustre L.

marsh horsetail

Eurhynchium oreganum (Sull.) Jaeq. and Sauerb.

feather moss

Hylocomium splendens (Hedw.) B.S.G.

stairstep moss

Lorinseria areolata Presl.

net-veined chain fern

Onoclea sensibilis L.

sensitive fern

Polypodium glycyrrhiza D. C. Eat.

licorice fern

Polypodium polypodioides (L.) A. S. Hitchcock

resurrection fern

Polypodium vulgare L.

maiden hair fern

Polystichum acrostichoides (Michx.) Schott

Christmas fern

Polystichum juniperinum (Hedw.)

juniper haircap moss

Polystichum munitum (Kaulf.) Presl.

sword fern

(sheet 1 of 46)

Pteridium aquilinum (L.) Kuhn bracken fern Rhytidiadelphus loreus (Hedw.) Warnst. little shaggy moss

GRASSES

Agropyron dasystachyum (Hook.) Vasey thickspike wheatgrass

Agropyron intermedium (Host) Beauv. wheatgrass

Agropyron repens (L.) Beauv. quackgrass

Agropyron trachycaulum Vasey slender wheatgrass

Agrostis alba L. redtop bentgrass

Agrostis exarata Trin. spike bentgrass

Agrostis gigantea Roth. redtop

Agrostis hyemalis (Walt.) BSP ticklegrass

Agrostis perennans (Walt.) Tuckerman autumn bentgrass

Agrostis scalera Willd.

hairgrass

Agrostis stolonifera L.

running bentgrass

Rhode Island bentgrass
caryophvlla L. Agrostis tenius Sibth.

Aira caryophylla L. silver hairgrass

Aira elegans Willd. hairgrass

Aira praecox L. hairgrass

Ammophila arenaria L. European beach grass

Ammophila breviligulata Fernald. American beach grass

Andropogon gerardi Vitm.

big bluestem Andropogon glomeratus (Walt.) BSP

bushy beardgrass

Andropogon scoparius Michx. little bluestem

Andropogon ternarius Michx. splitbeard bluestem

(sheet 2 of 46)

Andropogon virginicus L. broomsedge

Aristida intermedia Schribn. & Ball. prairie three-awn

Aristida longespica Poir. three-awn

Aristida oligantha Michx. prairie three-awn

Arundo donax L. giant reed

Brachiaria platyphylla (Gris.) Nash.

coast arm-grass

Bromus catharticus L. rescue grass

Bromus inermus Leyss brome grass

Bromus japonicus Thunb. Japanese chess

Bromus kalmii A. Gray

wild chess Bromus mollis L.

soft chess

Bromus secalinus L. ryebrome

Bromus tectorum L. cheat grass

Bromus unioloides(Willd.) HBK Schrader's rescue grass

Bothriochloa ischaemum (L.) Keng. var. songaricus Fisch. & Mey. King Ranch bluestem

Bothriochloa saccharoides (Sw.) Rybd.

silver bluestem Calamagrostis canadensis (Michx.) Beauv.

bluejoint reedgrass Calamagrostis inexpansa Gray var. brevior (Vasey) Steb.

reed bentgrass Cenchrus ciliaris L. buffelgrass

Cenchrus echinatus L.

sandspur Cenchrus incertus M. A. Curtis

coast sandspur Cenchrus longispinus (Hach.) Fern.

Cenchrus pauciflorus Benth.
field sandspur
Cenchrus tribuloides L.
dune sandspur

Chloris cucullata Bisch. hooded windmill grass

(sheet 3 of 46)

Chloris glauca (Chapm.) Wood fingergrass

Chloris latisquamea Nash. Nash windmill grass

Chloris petraea Sw.

Cynodon dactylon (L.) Pers. common Bermuda grass

Dactylis glomerata L. orchard grass

Dactyloctenium aegyptium (L.) Richt. crowfoot grass

Deschampsia caespitosa (L.) Beauv. tufted hairgrass

Digitaria ischaemum (Schreb.) Muhl. smooth crabgrass

Digitaria sanguinalis (L.) Scopoli large crabgrass

Digitaria texana Hitchc. Texas crabgrass

Distichlis spicata (L.) Greene saltgrass

Enchinochloa colonum (L.) Link jungle rice

Enchinochloa crusgalli (L.) Beauv. barnyard grass

Enchinochloa muricata (Beauv.) Fern. barnyard grass

Enchinochloa walteri (Pursh.) Heller Walter's millet

Elusine indica (L.) Gaertner goose grass

Elymus canadensis L. Canadian wild rye

Elymus mollis Trin. American dune grass

Elymus virginicus L. wild rye

Eragrostis barrelieri Daveau.

Eragrostis capillaris (L.) Nees

lacegrass Eragrostis ciliaris (L.) R. Br.

lovegrass Eragrostis frankii C. A. Mey. Frank's lovegrass

Eragrostis hypnoides (Lam.) BSP

Eragrostis oxylepis (Torr.) Torr. red lovegrass

(sheet 4 of 46)

Lander of the second of the second se

y ne-mounts to be drug

Eragrostis pectinacea (Michx.) Nees.

purple lovegrass

Eragrostis sessilispica Buckl.

tumble lovegrass

Eragrostis spectabilis (Pursh.) Steud.

purple lovegrass

Eragrostis trichodes (Nutt.) Nash

lovegrass

Festuca arundinacea Schreb.

tall fescue

Festuca bromoides L.

fescue

Festuca myuros L.
rattail fescue

Festuca octoflora Walt.

fescue

Festuca rubra L.

red fescue

Glyceria grandis S. Wats.

American mannagrass
Holeus language

Holcus lanatus L.

common velvetgrass

Hordeum brachyantherum Nevski

meadow barley

Hordeum jubatum L.

foxtail barley

Hordeum pusillum Nutt.

little barley

Hordeum vulgare L.

barley

Hystrix patula (L.) Millsp.

bottlebrush

Leersia lenticularis Michx.

catchfly grass Leersia oryzoides (L.) Sw.

rice cutgrass

Leersia virginica Willd.

cutgrass

Leptochloa virgata (L.) Beauv.

Leptoloma cognatum (Schult.) Chase

fall witchgrass

Lolium multiflorum Lam.
Italian ryegrass

Lolium perenne L.

m perenne L. perennial ryegrass

Melica mutica Walt.

melic grass

Microstegium vimineum (Trin.) A. Camus.

(sheet 5 of 46)

Monanthochloe littoralis Engelm. shoregrass

Muhlenbergia capillaris (Lam.) Trin. coast muhly

Muhlenbergia frondosa (Poir.) Fern. dropseed

Muhlenbergia racemosa (Michx.) BSP wild timothy

Muhlenbergia rigens (Benth.) Hitchc. deertongue

Oplismenus setarius (Lam.) R. & S.

Panicum amarulum Hitchc. & Chase shoredune panic grass

Panicum amarum Ell.

beach panic grass Panicum anceps Michx.

beaked panic grass

Panicum angustifolium Ell. narrowleaf panic grass

Panicum capillare L. witchgrass

Panicum clandestinum L. panic grass

Panicum dichotomiflorum Michx. spreading witchgrass

Panicum lanuginosum Ell.

wooly panic grass

Panicum oligosanthes Schultes

few-flowered panic grass
Panicum ovinum Schribn. & Sm.

sheep panic grass Panicum paludivagum Hitchc.

water panic grass

Panicum repens L. torpedo grass

Panicum spaerocarpon Ell.
roundseed panic grass
Panicum virgatum L.

switchgrass

Parapholis incurva (L.) C. E. Hubb.

sicklegrass Paspalum boscianum Fluegge.

bull paspalum Paspalum ciliatifolium var. stramineum (Hash) Fern.

ciliate paspalum Paspalum distichum L.

knotgrass

Paspalum ditatatum Poir. dallis grass

(sheet 6 of 46)

Paspalum monostachyum Vasey gulfdune paspalum

Paspalum notatum Flugge bahia grass

Paspalum plicatulum Michx. brownseed paspalum

Paspalum setaceum Michx. coast paspalum

Paspalum urvillei Steud. Vasey grass

Paspalum vaginatum Sw.

seashore paspalum Phalaris arundinacea L.

reed canary grass Phalaris caroliniana Walt.
Carolina canary grass

Phleum pratense L.

timothy Phragmites australis (Cav.) Trin. ex Steud.

common reed Poa annua L. bluegrass

Poa compressa L. Canada bluegrass

Poa macantha Vasey seashore bluegrass

Poa palustris L. fowl meadowgrass

Poa pratensis L. Kentucky bluegrass

Polypogon monspeliensis (L.) Desf.

rabbitfoot polypogon

Rhynchelytrum repens (Willd.) C. E. Hubbard natal grass

Rhynchelytrum roseum (Nees) Stapf. & Hubb. pink natal grass

Setaria geniculata (Lam.) Beauv. foxtail barley

foxtail barley

Setaria glauca (L.) Beauv. little foxtail grass

Setaria leucopila (Schribn. & Mey.) K. Schum. plains bristlegrass

Setaria magna Gris.

giant foxtail grass
Setaria viridis (L.) Beauv.
green bristlegrass green bristlegrass

Sorghastrum nutans (L.) Nash. Indian grass

Sorghum halepense Pers. Johnson grass

(sheet 7 of 46)

Spartina alterniflora Loisel.

smooth cordgrass

Spartina cynosuroides (L.) Roth

big cordgrass

Spartina foliosa Trin.

Pacific cordgrass

Spartina patens (Ait.) Muhl.

saltmeadow cordgrass

Spartina pectinata Link

Spartina spartinae (Trin.) Hitchc.

gulf cordgrass

Sphenopholus intermedia Rydb.

wedgescale

Sphenopholus obtusata (Michx.) Scribn.

prairie wedgescale

Sporobolus asper (Michx.) Kunth

tall dropseed

Sporobolus cryptandrus (Torr.) Gray

sand dropseed

Sporobolus domingensis (Trin.) Kunth

Florida dropseed

Sporobolus indicus (L.) R. Brown

tropic dropseed

Sporobolus poiretii (R. & S.) Hitchc.

smutgrass

Sporobolus pyramidatus (Lam.) Hitchc.

whorled dropseed

Sporobolus virginicus (L.) Kunth

Virginia dropseed

Stenotaphrum secundatum (Walt.) Kuntze

St. Augustine grass

Tridens albescens (Vasey) Woot. & Standl.

white tridens

Triplasis purpurea (Walt.) Chapm.

sand grass

Uniola paniculata L.

sea oats

Zea mays L.

corn

AQUATICS AND LOW MARSH (mostly herbaceous, and not listed elsewhere)

Alisma plantago - aquatica L.

water plantain

Alisma subcordatum Raf.

water plantain
Alternanthera philoxeroides (Martius) Gris.

alligator weed

(sheet 8 of 46)

Passan in accommendation of the

Alisma plantago-aquatica L. water plantain Alisma subcordatum Raf. water plantain Aneilema keisak Hass. marsh dayflower Bacopa monnieri (L.) Wettst. water hyssop Batis maritima L. saltwort Boltonia asteroides (L.) L'Her. marsh boltonia Callitriche fassettii L. water starwort Callitriche heterophylla Pursh. water starwort Carex albolutescens Schwein. greenish-white sedge Carex annectans (Bickn.) Bickn. yellow-fruited sedge Carex brevior (Dewey) Mackenzie sedge Carex cristatella Britton crested sedge Carex emoryi Dewey water sedge Carex hystericina Muhl. porcupine sedge Carex laeviconica Dewey hairy-fruited sedge Carex lanuginosa Michx. woolly sedge <u>lyngbyei</u> Hornem.
Lyngby's sedge Carex lyngbyei Hornem. Carex macrocephala large-headed sedge Carex muhlenbergii Schk. Muhlenberg's sedge Carex muskingumensis Schwein. muskingum sedge Carex obnupta Bailey Pacific sedge Carex phyllomanica W. Boott. coastal sedge Carex scoparia Schnk. pointed sedge Carex siccata Dewey dry-spiked sedge Carex stipata Muhl. awl fruited sedge

(sheet 9 of 46)

Carex tenera Dewey straw sedge Carex tribuloides Wahl. blunt sedge Carex trichocarpa Muhl. slough sedge Carex typhina Michx. cattail sedge Carex vulpinoidea Michx. fox sedge Cladium jamaicensis Crantz saw grass Cyperus aristatus Boeckl. awned nutsedge Cyperus articulatus L. nutsedge Cyperus compressus L. flat nutsedge Cyperus dentatus Torr. toothed cyperus Cyperus erythrorhizos Muhl. red-rooted sedge Cyperus esculentus L. chufa Cyperus filicinis Vahl. Nuttall's cyperus Cyperus inflexus Muhl. awned cyperus Cyperus iria L. yellow cyperus Cyperus lingularis L. nutsedge Cyperus lupulinus L. slender-stemmed cyperus Cyperus odoratus L. coarse cyperus Cyperus ovularis (Michx.) Torr. globe nutsedge Cyperus planifolius L. nutsedge Cyperus polystachyos var. texanis (Torrey) Fernald flat nutsedge Cyperus rotundus L. purple nutsedge Cyperus schweinitzii Torr. Schweinitz's cyperus Cyperus strigosus L.

(sheet 10 of 46)

straw-colored cyperus

oneflower nutsedge

Cyperus uniflorus L.

Cyperus virens Michx. nutsedge

Cyperus vivularis Kunth.
shinging cyperus

Dichromena colorata (L.) Hitchcock
white-topped umbrella grass

Eleocharis acicularis (L.) R & S
least spike rush

Eleocharis baldwinii (Torrey) Chap.

Baldwin spike rush

Eleocharis calva Torrey spike rush

Eleocharis halophila Fern. & Brackett spike rush

Eleocharis montevidensis Kunth sand spike rush

Eleocharis obtusa (Willd.) Schultes
blunt spike rush

Eleocharis palustris (L.) R. & S. creeping spike rush

Eleocharis parvala (R. & S.) Link.
dwarf spike rush

Fimbristylis castanea (Michx.) Vahl. fimbry

Fimbristylis spadicea (L.) Vahl. fimbristylis

Hydrocotyle bonariensis Lam. water pennywort

Hydrocotyle verticillata Thunberg pennywort

Jaumea carnosa (Less.) Gray

Juncus balticus Willd.

Baltic rush

Juncus bufonis L.

Juncus coriaceus Mackenzie rush

Juncus dudleyi Wiegand
Dudley's rush

Juncus effusus L. soft rush

Juncus gerardi Lois black rush

Juncus marginatus Rostk.
grassleaf rush

Juncus nodosus L. knotted rush

Juncus roemerianus Scheele black needlerush

(sheet 11 of 46)

Juncus tenius Willd. Canalogical constituence telegraph and the slender rush water primrose Lilaeopsis occidentalis Coult. & Rose lilaeopsis Limonium carolinianum (Walt.) Britton sea lavender Limonium nashii Small sea lavender Limonium vulgare Miller sea lavender Lycopus americanus Muhl. water horehound Lycopus rubellus Moench. water horehound Najas gracillima (A. Br.) Magnus naiad Peltandra virginica (L.) Kunth. arrow arum Polygonum amphibium Michx. water smartweed Polygonum argyrocoleon Steudel ex Kunze smartweed prostrate knotweed Polygonum aviculare L. Polygonum coccineum Muhl. ex Willd. marsh smartweed Polygonum densiflorum Meisn. southern smartweed Polygonum erectum L. erect smartweed Polygonum hydropiper (L.) Opiz marsh pepper Polygonum lapathifolium L. nodding smartweed nodding smartweed
Polygonum paranychia Cham. & Schlect. black smartweed Polygonum persicaria L. lady's thumb Polygonum pennsylvanicum L.
Pennsylvania smartweed Polygonum punctatum Ell. dotted smartweed Polygonum ramosissimum Michx. bushy knotweed

Polygonum scandens L.

Pontederia cordata L. pickerelweed

climbing false buckwheat deria cordata L.

(sheet 12 of 46)

Ptilimnium capillaceum (Michx.) Raf. water ptilimnium Rorippa islandica var. hispida (Desv.) B. & A. Ruppia maritima L.
widgeongrass Sabatia stellaris Pursh. Sagittaria latifolia Willd.

broadleaf arrowhead

Sagittaria rigida Pursh.

narrowleaf arrowhead

Sagittaria energylean

Sagittaria spatulata (J. G. Smith) Buch.

<u>Salicornia</u> <u>bigelowii</u> Torr. Bigelow's glasswort Salicornia europaea L.

Salicornia europaea L.

European glasswort
Salicornia virginica L.

woody glasswort
Salsola kali L.

Scirpus acutus Muhl.

handstem bulrush

Scirpus americanus Britt.

common threesquare
Scirpus atrovirens Muhl.

dark green bulrush

Scirpus californicus (C. A. Meyer) Britton
southern bulrush
Scirpus cyperinus (L.) Kunth
wool grass

Scirpus fluviatilis (Torr.) A. Gray river bulrush

Scirpus maritimus L. saltmarsh bulrush Scirpus olneyi Gray

Olney's threesquare

Scirpus robustus Pursh. saltmarsh bulrush

Scirpus validus Vahl.
softstem bulrush

Sium suave Walt. water parsnip

Syringodium filiforme Kuetz

manatee grass

Triglochin maritima L.

seaside arrowgrass

Triglochin arritan D.

Triglochin striata R. & P. southern arrowgrass

(sheet 13 of 46)

Typha angustifolia L. narrowleaf cattail Typha domingensis Persoon tule cattail Typha latifolia L. broadleaf cattail Ulva lactuca L. sea lettuce Zostera marina L. eel grass

HERBS

Abronia latifolia Esch. yellow abronia Abrus precatorious L. crab's eye Abutiion theosprasti Medic velvetleaf Acalypha radians Torr. round copperleaf Acalypha rhombiodea Raf. three-seeded mercury Achillia millefolium L. yarrow Acnida altissima Riddell water hemp Acnida tomariscina (Nutt.) Wood water hemp Agalinis fasciculata (Ell.) Raf. fascicled agalinis Agalinis heterophylla (Nutt.) Small prairie agalinis Agalinis maritima (Raf.) Raf. seaside agalinis Agalinis purpurea (L.) Pennell. purple agalinis Agoseris heteroplylla (Nutt.) Greene false dandelion Aloe vera (L.) Webb. true aloe Alyssum alyssoides L.

alyssum

Berlandier amaranth

water amaranth Amaranthus hybridus L. common pigweed

Amaranthus cannabinis (L.) J. D. Sauer

(sheet 14 of 46)

Amaranthus berlandieri (Moq.) Uline. & Bray.

and the transfer or could be

at ability life where positive inhibitions and

Amaranthus palmeri Wats. Palmer amaranth

Amaranthus retroflexus L.

green pigweed

Amaranthus spinosus L.

spiny pigweed

Amaranthus tamariscinus Nutt.

water amaranth

Amaranthus tuberculatus (Moq.) Sauer
water amaranth

Amaranthus viridis Desf.

slender amaranth

Ambrosia artemisiifolia L.

common ragweed

Ambrosia bidentata Michx.

southern ragweed

Ambrosia chamissonis (Less.) Greene

silver bursage

Ambrosia psilostachya DC.

western ragweed

Ambrosia trifida L.

giant ragweed

Amorpha fruticosa L.

false indigo

Amorpha herbacea Walt.

lead plant

Anagallis arvensis L.

scarlet pimpernel

Anaphalis margaritacea (L.) B.& H.

pearly everlasting

Anemone canadensis L.

anemone

Angelica lucida L.

sea-watch

Anthemis cotula L.

mayweed

Aphanostephus kidderi Blake

kidder daisy

Aphanostephus okirrhobosis (DC.) Trel.

lazy daisy

Apios americana Medic

groundnut

groundnut
Apium leptophyllm (Pers.) F. V. Muell.

Apocynum cannabinum L.

Indian hemp

Aquilegia canadeneis L.

wild columbine

Arctrium minus Schk.

common burdock

(sheet 15 of 46)

Arenaria peploides L. seabeach purslane Solve Prings and Langer Arisaema dracontium (L.) Schott. green dragon Artemisia absinthium L. common wormwood Artemisia biennis Willd. wormwood Artemisia caudata Michx. tall wormwood Artemisia ludoviciana Nutt. western mugwort Artemisia serrata Nutt. wormwood Asclepias incarnata L. swamp milkweed Asclepias lanceolata Walt. coast milkweed Asclepias oenotheroides Cham. & Schlecht milkweed Asclepias syriaca L. common milkweed Asclepias verticillata L. whorled milkweed Asparagus officinalis L. garden asparagus Asplenium platyneuron (L.) D. C. Eat. ebony spleenwort Aster ericoides L. white heath aster Aster novae-angliae L. New England aster Aster ontarionsis Wieg. aster Aster pilosus Willd. frost aster Aster simplex Willd. aster Aster spinosus Benth. Mexican aster Aster sublatus Michx. annual saltmarsh aster Aster subspicatus Nees Douglas's aster Aster subulatus Michx. aster

Aster tenuifolius L. saltmarsh aster

Aster vimineus Lam. aster

(sheet 16 of 46)

Astragulus canadensis L. milk vetch Astragulus leptocarpus T. & G.
slimpod milk vetch
Atriplex arenaria Nutt. Atriplex arenaria Nutt. beach orache Atriplex patula L. shore orache Barbarea vulgaris R. Br. common wintercress Bassia hirsuta L. European bassia Berteroa incana (L.) DC. hoary alyssum Bidens arnua L. nodding beggartick s comosa (Gray) Wieg.

leafy-tracted tickseed Bidens comosa (Gray) Wieg. Bidens connata Muhl. swamp beggartick Bidens frondosa L. beggartick Bidens pilosa L. beggartick Bidens vulgata Greene tall beggartick Boehmeria cylindrica (L.) Swartz bog-hemp Boerhaavia coccinea Mill. red spiderling Boerhaavia diffusa L. spiderling Borrichia frutescens (L.) DC. sea ox-eye Brassica juncea (L.) Cosson Brassica nigra (L.) Koch Chinese mustard black mustard Buchnera floridana Gand. Florida bluehearts Caesalpinia crista L. gray nicker bean Cakile endentula (Bigel.) Hook American sea rocket Cakile fusiformis Greene sea rocket Cakile harperi Small sea rocket Cakile maritima Scop.

European sea rocket

(sheet 17 of 46)

Callirhoe involucrata (Torr.) Gray
low peppermallow

Caltha biflora DC.
marsh marigold

Calylophus australis Towner & Raven

Campanula americana L.
tall bellflower

Campanula rotundifolia L. harebell

Canavalia maritima (Aubl.) Thouars.

June bean

Canavalia rosea L.
bay bean

Cannabis sativa L. wild hemp

Capsella bursa-pastoris (L.) Medic pickpocket

Capsicum annuum L. bird pepper

Cardimine pennsylvanica Muhl.

bitter cress

Cardionema racesissima (Weinm.) Nels.

Carduus lanceolatus L. bull thistle

Carduus smallii (Britt.) Ahles
thistle

Cardures nutans L.

Cassia fasciculata Michx.

partridge pea

Cassia occidentalis L.

Catharanthus roseus (L.) G. Don.

Madacascar periwinkle

Celastrus scandens L.

bittersweet

Centaurea americana Nutt.
thornless thistle

Centaurea maculosa Lam.
spotted star-thistle

Cerastium brachypodium (Engelm.) Robins.
mouse ear

Cerastium vulgatum L.

mouse-ear chickweed

<u>Chamaesyce blodgetti</u> (Engelm. ex Hitchc.) Small

spurge
Chamaesyce hirta (L.) Mill.
spurge

(sheet 18 of 46)

THE RESERVE OF THE PARTY OF THE

Chenopodium albescens Small

pale goosefoot

Chenopodium album L. lambsquarters

Chenopodium ambrosioides L.

Mexican tea

Cichorium intybus L.

common chicory

Circuta bulbifera L.

water hemlock

Cirsium arvense (L.) Scop.

Canada thistle

Cirsium vulgare (Savi) Tenore

bull thistle

Clitoria ternatea L.

blue pea

Cnidoscalus stimulosus (Michx.) Engelm. & Gray

tread softly

Commelina communis L.

Asian dayflower
Commelina diffusa Burm.
dayflower

dayflower

Commelina erecta L.

dayflower

Commelina virginica L.

Virginia dayflower

Conioselinum pacificum (Wats.) Coult. & Rose hemlock parslev

hemlock parsley

Conyza canadensis (L.) Cronq.

horseweed

Coreopsis cardaminaefolia (DC.) Nutt.

Manzanilla coreopsis

Coreopsis lanceolata L.

coreopsis

Coreopsis tinctoria Nutt.
plains coreopsis Corydalis micrantha (Engelm.) Gray

scambled eggs

scambled eggs

Cotula coronopifolia L.

brass button

Crepsis capillaris (L.) Walls.

hawksbeard

Crinum americanum L.

string lily

Croptilon divaricatum (Nutt.) Raf.
slender goldenweed

Crotalaria mucronata Desv.

Croton capitatus Michx.

woolly croton

(sheet 19 of 46)

Croton glandulosus L. glandular croton Croton punctatus Jacq.

croton

Cryptotaenia canadensis (L.) DC. honewort

Crysanthemum leucanthemum L. field daisy

Cycloloma atriplicifolium (Spreng.) Coult.
winged pigweed

Joseph Chile of the joinness

Cynanchum angustifolium Pers. swallow wort

Dahbergia ecastophyllum (L.) Benth. dahlbergia

Dalea emarginata (T. & G.) Shinners dalea

Dalea nana Torr. dwarf dalea

Daubentonia punicea (Cav.) DC. pea

Daucus carota L.
Queen Anne's lace

Desmanthus <u>illinoensis</u> (Michx.) MacM.

Illinois bundleflower

Desmanthus obtusus Wats.

bluntpod bundleflower

Desmanthus virgatus (L.) Willd.

bundleflower
Desmodium glabellum (Michx.) DC.

tick trefoil

<u>Dichondra carolinensis</u> Michx.

false pennywort

Digitalis purpurea L. fox glove

Diodia teres Walt.

poor joe

Dioscorea bulbifera L. air jam

Dondonaea viscosa (L.) Jacq.
varnish leaf

Dyssodia tenuiloba (DC.) Robins

bristleleaf dogweed

<u>Echinocactus</u> <u>texansis</u> Hopffer

horse crippler cactus

<u>Echinocystis lobata</u> (Michx.) T. & G.

wild cucumber Eclipta alba (L.) Hass.

<u>Eclipta alba</u> (L.) Hass. yerba

Elephantopus coelestinum L. elephant's foot

(sheet 20 of 46)

Elephantopus nudatus Gray elephant's foot Epilobium angustifolium L.

great willow-herb

Epilobium glandulosum Lehm. willow-herb

Epilobium watsonii Barbey Watson's willow-herb

Erechtites hieracifolia L. Raf. fireweed

Erigiron annuus L. Pers. daisy fleabane

Erigeon canadensis L. horseweed fleabane

Erigeron myrionactus Small Corpus Christi fleabane

Erigeron philadelphicus L. fleabane

fleabane
Erigeron pusillus (Nutt.) Ahles

Erigeron quercifolius Lam. daisy fleabane

Erigeron strigosus Muhl.

daisv fleabane

Erysemum cheiranthoides L. wormseed mustard

Erythrina herbacea L. coral bean

Eupatorium album L. white thoroughwort

Eupatorium capillifolium (Lam.) Small dog fennel

Eupatorium coelestinum L. ageratum

Eupatorium compositifolium Walt. dog fennel

Eupatorium hyssopifolium L. thoroughwort

Eupatorium maculatum L. joe-pye-weed

Eupatorium perfoliatum L. boneset

Eupatorium rugosum Houtt. white snakeroot

Eupatorium serotinum Michx. late flowering thoroughwort

Euphorbia dentata Michx. spurge

Euphorbia glyptosperma Engelm. ridgeseed spurge

(sheet 21 of 46)

Euphorbia maculata L. spotted spurge Euphorbia polygonifolia L.

spurge

Euphorbia serpens HBK spurge

Euphorbia supina Raf. milk purslane

Eustoma exaltatum (L.) G. Don. tall prairie-gentian

Euthamia leptocephala (T. & G.) Greene

Flaveria floridana J. R. Johnston Florida flaveria

Frageria virginiana Duchesne broadpetal strawberry

Froelichia floridana (Nutt.) Moq. frolichia

Gaillardia pulchella Foug. Indian basket

Galactia macreei M. A. Curtis galactia

Galinsoga ciliata (Raf.) Blake galinsoga

Galium aparine L. cleavers

Galium boreale L. northern bedstraw

Galium hispidulum Michx.

Galium obtusum Bigel.
marsh bedstraw

Galium palustre L. bedstraw

Galium tinctorium L.
marsh cleavers

Galium trifidum L. small bedstraw

Gaura angustifolia Michx.

Gaura brachycarpa Small plains gaura

Geranium carolinianum L.
Carolina geranium

Geranium robertianum L. herb-robert

Geranium texanum (Trel.) Heller
Texas geranium

Gerardia maritima Raf. seaside gerardia

(sheet 22 of 46)

Gerardia tenuifolia Vahl.
Bessey's gerardia

Geum laciniatum Murr.
avens

Geum virginianum L. rough avens

Glecoma hederacea L. creeping charlie

Gnaphalium falcatum Lam.

Gnaphalium obtusifolium L. rabbit tobacco

Gnaphalium pensilvanicum Willd.

Gnaphalium purpueum L. purple cudweed

Gratiola neglecta Torrey hedge hyssop

Grindelia integrifolia (Greene) Cronq. resinweed

Habenaria dilatata (Pursh.) Hook.
white bog-orchard

Hackelia virginiana (L.) I. M. Johnston stickweed

Hedeoma hispida Pursh. mock pennyroyal

Hedyotis humifusa Gray.

mat bluets

Hedyetis nigricans (Lam.) Fosb.
prairie bluets

Hedyotis subviscosa (Gray) Shinners nodding bluets

Helenium amarum (Raf.) Rock.
bitter sneezeweed

Helenium autumnale L.

sneezeweed

Helianthus annuus L. common sunflower

Helianthus argophyllus T. & G. silverleaf sunflower

Helianthus debilis Nutt.

sunflower

<u>Heliopsis helianthoides</u> L. Sweet

ox-eye
Heliotropium angiospermum Murray

heliotrope

<u>Heliotropium curassavicum</u> L.

seaside heliotrope

Heliotropium polyphyelum Lehmann heliotrope

(sheet 23 of 46)

Hemerocallis fulva L. daylily

Hemicarpa micrantha (Vahl.) Pox

Hepatica acutiloba DC. liverleaf

Heracleum lanatum Michx. cow parsnip

Heracleum maximum Bartram masterwort

Heterotheca pilosa (Nutt.) Shinners soft aster

Heterotheca subaxillaris (Lam.) Britt. & Rusby camphorweed

Hibiscus palustris L. swamp rose mallow

Hieracium aurantiacum L. orange hawkweed

orange hawkweed Honkenya peploides (L.) Ehrb.

seabeach sandwort Hudsonia tomentosa Nutt. beach heather

Hymenocallis latifolia (Mill.) Roem. spider lily

Hypochaeris radicata L. spotted cats-ear

Ibervillea tripartita (Naud.) Greene globe berry

Impatiens biflora Walt. touch-me-not

Impatiens capensis Meerb. spotted touch-me-not

Impatiens noli-tangere L.

touch-me-not
Indigofera minata Ort.
scarlet pea
Iresine celosia L.
Florida bloodleaf
Iresine rhizomatosa Stan.
bloodleaf
Iris pseudacorus L.
yellow flag
Iris virginica L.
blue flag

blue flag

Kalenchoe pinnata Pers. cathedral bells

Kostelatzwya virginica Presl. ex Gray saltmarsh mallow

saltmarsh mallow
Lactuca biennis (Moench) Fern. wild lettuce

(sheet 24 of 46)

Lactuca canadensis L. wild blue lettuce

Lactuca floridana (L.) Gaertner wild lettuce

Lactuca graminifolia Michx.

wild lettuce

Lactuca hirsuta Muhl.

wild lettuce

Lactuca scariola L.

wild lettuce

Laportea canadensis (L.) Wedd.

Lathyrus japonicus Willd.

beach pea

Lechea maritima Leggett

maritime pinweed

Leonurus cardiaca L.

common motherwort

Lepidium austrinum Small

southern peppergrass

Lepidium campestre (L.) R. Br.

cow cress

Lepidium densiflorum Schrad.

peppergrass

Lepidium virginicum L.

peppergrass

lum virginicum L.

Virginia peppergrass

Virginia peppergrass

Leucauna leucocephala (Lam.) de Wit.

Limnosciadium pumilum (Englm. & Gray) Math. & Const.

Linaria canadensis (L.) DuMont
toadflax
Linaria vulgaris Hill
butter and eggs
Lindernia dubia (L.) Pennell
flase pimpernel
Linum alatum (Small) Winkl.
flax
Lippia lanceolata Michx.
frogfruit
Lippia nodiflora (L.) Michx.
spat late-leaved frogfruit
Lobelia cardinalis L.
cardinal flower
Lobelia siphilitica L.
great lobelia
Lotus corniculatus L.
birdsfoot trefoil
Lupinus littoralis Dougl.
seashore lupine seashore lupine

(sheet 25 of 46)

Ludwigia palustris (L.) Ell. false loosestrife Lycharis alba Mill. white campion
Lycopus americanus Muhl. Lycopus rubellus Moench. water horehound Lycopus virginicus L.

water horehound

Lycium carolinianum Walt.

Carolina wolfberry Lygodesmia aphylla (Nutt.) DC. flowering straws Lysichitum americanum Hult. and St. John skunk cabbage ichia ciliata L.
fringed loosestrife
ichia hybrida Michx. Lysimachia ciliata L. Lysimachia hybrida Michx. Lysimachia hybrida michx.

lance-leafed loosestrife
Lysimachia terrestris (L.) BSP swamp loosestrife Lythrum alatum Pursh. loosestrife

Lythrum lanceolatum Ell.

loosestrife
Lythrum lineare L.

m lineare L.
saltmarsh loosestrife
m salicaria L. Lythrum lineare L. Lythrum salicaria L.

Machaeranthera phyllocephala (DC.) Shinners camphor daisy

Malvaviscus arboreus Cav.

mallow

Mammellaria gummifera Engel.

nipple head cactus

Matelea decipiens (Alex.) Woodson

Matricaria matricarioides (Less.) Porter pineapple weed

Maurandya antirrhiniflora Willd.

snapdragon vine

Medicago lupulina L. pineapple weed

Medicago polymorpha L. bur clover

white sweet clover Meliotus albus Lam. Meliotus indicus (L.) All. sweet clover

(sheet 26 of 46)

The second secon

Meliotus officinalis (L.) Lam. yellow sweet clover

Melothria pendula L. creeping cucumber

Mentha arvensis L. field mint

Mikania scandens (L.) Willd. climbing hempweed

Mimulus guttatus DC. marsh monkey flower

Mimulus ringens L. monkey flower

Mirabilis nyctaginea (Michx.) MacM. four o'clock

Modiola caroliniana (L.) G.Don. Carolina mallow

Mollugo verticillata L.

carpetweed

Momordica charantia L.

wild balsam apple

Monarda punctata L.

horsemint

Montia sibirica (L.) Howell candyflower

Myosoton aquaticum (L.) Moench.

giant chickweed

Mysotis laxa Lehm.

forget-me-not

Nepeta cataria L.

catnib

catnip

Neptunia lutea Leavenworth

Neptunia pubescens Benth.
tropical neptunia

Nothoscordum bivalve (L.) Britton
crow poison
Oenanthe sarmentosa Presl.

Pacific water parsley mera biennis L.

Oenothera biennis L.

evening primrose
Oenothera drummondii Hook.

beach evening primrose
Oenothera fruticosa L.

evening primrose

Oenothera hookeri T. & G.

Hooker's evening primrose

Oenothera humifusa Nutt.

seaside evening primrose
Oenothera lacinista Hill.

cut-leaved evening primrose

(sheet 27 of 46)

Oenothera parviflora L. evening primrose

Oenothera perennis L. sundrops

Oenothera rhombipetata Nutt.

rhombic evening primrose
Oenothera speciosa Nutt.

showy primrose

Opuntia compressa (Salisbury) MacB. east coast prickly pear cactus

He luntrols grows a col.

Opuntia humifusa Raf. prickly pear cactus

Opuntia leptocaulis DC.

desert Christmas cactus

Opuntia lindheimeri Engelm. Texas prickly pear cactus

Opuntia stricta Haw.

Florida prickly pear cactus
Orthocarpus castillejoides Benth. paintbrush owl-clover

Oxalis dillenii Jacq.

wood sorrel

Oxalis europaea Jord. lady's sorrel

Oxalis stricta L.

yellow wood sorrel

Palafoxia texana DC.

Texas palafoxia
Parentucellia viscosa (L.) Car. yellow parentucellia

yellow parentucellia

Parietaria floridana Nutt.

Florida pellitory

Parietara pensylvanica Muhl.

hammerwort

Parietaria praetermissa Hinton

pellitory Parkinsonia aculeata L. retama

Passiflora lutea L.

passion flower
Pastinaca sativa L. parsnip

Penthorum sediodes L. ditch stonecrop

Philoxerus vermicularis (L.) R. Br. saltweed

Phlox glabriflora (Brand.) Whiteh. Rio Grande phlox

Phyllanthus carolinensis Walt. Carolina phyllantus

(sheet 28 of 46)

Phyllanthus polygonoides Spreng. knotweed leafflower

Phylla incisa Small

Texas frogfruit

Physalis pubescens L.
downy ground cherry
Physalis viscosa (M.A. Curtis) Waterfall beach ground cherry

Physostagia formosior Lunell
false dragonhead

Phytolacca americana L.

pokeberry
Pilea pumila (L.) Gray
clearweed

Plantago aristata Michx.
buckthorn plantain

Plantago hookeriana Fisch. & Mey.

tallow plantain

Plantago hybrida Bart. plantain

Plantago lanceolata L. English plantain

Plantago major L.

common plantain

Plantago maritima L. sea plantain

Plantago rhodosperma Done. red-seeded plantain

Plantago rugellia Done. plantain

Pluchea camphorata (L.) DC.

marsh fleabane

Pluchea purpurascens (Sw.) DC. canela

Polanisia dodecandra (L.) DC. clammyweed

Polanisia graveolens Raf.

clammyweed Polygala alba Nutt.

white milkwort

Polygonatum canaliculatum (Muhl.) Pursh.

Solomon's seal Polygonella articulata (L.) Meisn.

jointweed Polyaenia nuttallii DC.

prairie parsley

Portulaca mundula I.M. Johnston Chisme

Portulaca oleracea L. purslane

(sheet 29 of 46)

Portulaca pilosa L.

pink purslane
Potentilla anserina L.

silverweed
Potentilla argentea L.

silvery cinquefoil
Potentilla arguta Pursh.

tall cinquefoil
Potentilla norvegica L.

five-finger cinquefoil
Potentilla pecifica Howell

Pacific marsh cinquefoil
Psoralea rhombifolia T. & G.

roundleaf scurfpea Pyrrhopappus carolinianus (Walt.) DC. false dandelion Ranunculus abortivus L. kidnewleaf buttercup Ranunculus pennsylvanicus L.

bristly crowfoot
Ranunculus repens L.

creeping buttercup Ratibida penundularis (T. & G.) Barnh. naked prairie-coneflower
Rhynchosia americana (Mill.) C. Metz. American snoutbean
Rhynchosia texana T. &. G.
Texas snoutbean Texas snoutbean

Richardia brasiliensis (Moq.) Gomez richardia Ricinus communis L. castor bean castor bean

Rivina humilis L.

rouge plant Rorippa islandica (Desv.) B. & A.

marsh cress
Rorippa palustris (L.) Bass. yellow cress Rorippa teres (Michx.) Stuckey
yellow cress
Rudbeckia hirta L. brown-eyed susan Rumex acetosa L. Rumex actosella L. sheep sorrel
Rumex crispus L. curly dock Rumex hastatulus Baldwin ex Ell.

(sheet 30 of 46)

sorrel

mexicanus Meisn. willow-leafed dock Rumex mexicanus Meisn. Rumex orbiculatus Gray water dock

Rumex patientia L. patience dock

Rumex persicaroides L.
yellow dock
Rumex pulcher L.
fiddle dock
Rumex salicifolius Weinm.

willow dock

Rumex verticillatus L. swamp dock

Sabatia arenicola Greenm. sand rose-gentian

Sabatia campestris Nutt. rose pink

Sabatia stellaris Pursh. sabatia

Samolus ebractealus HBK coast brookweed

Sanicula canadensis L. snakeroot

Sanicula marilandica L.

Saponaria officinalis L.

bouncing betty

Scaevola plummieri (L.) Vahl.)

Schrankia lalidens (Small) K. Schum.

Karnes sensitivebriar
Schrankia microphylla (Small) Macbr.

Scrophularia californica Cham & Schlecht. California figwort California figwort
Scrophularia marilandica L.

figwort

Scutellaria drummondii Benth. drummond skullcap

Scutellaria galericulata L.

marsh skullcap
Scutellaria latiflora L.

mad-dog skullcap Scutellaria epilobiifolia A. Hamilton

Scutellaria muriculata Ept. skullcap

Sedum sarmentosum Bunge stonecrop

(sheet 31 of 46)

Senecio glabellus Poir.
golden ragwort
Senecio imparipinnatus Klatt. ragwort Senecio jacobaea L. tansy ragwort Senecio vulgaris L. old-man-in-the-spring Sesbania drummondii (Rydb.) Cory rattle bean Sesbania exaltata (Raf.) Rydberg ex sensitivebriar Sesuvium maritimum (Walt.) BSP sea purslane Sesuvium portulacastrum L. sea purslane Sicyos angulatus L. bur cucumber Sida acuta Burm. false mallow Sida ciliaris L. Sida lindheimeri Engelm. & Gray showy false mallow

Sida rhombifolia L. arrowleaf false mallow prickly false mallow Sida spinosa L. sleepy catchfly Silene antvirhina L. Silene cserei Baumg. Silene noctiflora L.

night-flowering catchfly
Sisymbrium altissumum L.

tumble mustard tumble mustard Sisyrinchium biforme Bickn.

wiry blue-eye grass

Smilacina racemosa (L.) Desf.
false Solomon's seal

Smilacina stellata (L.) Desf.
false Solomon's seal

Solanum americanum Mill. Solanum americanum Mill. American nightshade Solanum carolinense L. horse nettle Solanum dulcamara L. nightshade Solanum gracile Link

nightshade

(sheet 32 of 46)

no land and Lile and

Solanum nigrum L. black nightshade Solanum triquetrum Cav. Texas nightshade Solidago altissima L. tall goldenrod Solidago canadensis L. meadow goldenrod Solidago gigantea Ait. giant goldenrod Solidago racemosa Greene goldenrod Solidago rugosa Mill. goldenrod Solidago sempervirens L. seaside goldenrod Solidago tenuifolia Pursh. goldenrod Sonchus arvensis L. field sowthistle Sonchus asper (L.) Hill prickly sowthistle
as oleraceus L. Sonchus oleraceus L. Specularia perfoliata (L.) A. DC.

Venus' looking glass Venus' looking glass
Spergularia canadensis (Persh.) G. Don Canadian sand spurry
Spergularia echinosperma Calak sand spurry Spergularia macrotheca (Hornem.) Heynh. beach sand spurry
Spergularia marina (L.) Griseb. saltmarsh sand spurry Spergularia platensis (St.- Hill & A. Juss.)

Spilanthes americana (Walt.) A. H. Moore
ladies' tresses
Spilanthes ovalis Lindl.
lesser ladies' tresses
Spilanthes verpalis Force

Spilanthes vernalis Engelm. & Gray

spring ladies' tresses Stachys crenata Raf.

shade betony Stachys hispida Pursh. rough hedge nettle Stachys tenuifolia Willd.

Stellaria calycantha (Ledeb.) Bong smooth hedge nettle northern silene

(sheet 33 of 46)

Stellaria media (L.) Cyrillo common chickweed

Stellaria prostrata Baldwin prostrate starwort

Stemodia tomentosa (Mill.) Greenm. & Thomps. Stipulicida setacea Michx.

springbark clovet

pinweed

Strophostyles helvola (L.) Ell.

trailing wild bean Stylosanthes viscosa Sw. pencil flower

pencil flower
Suaeda linearis (Ell.) Moq. sea blite

Suaeda maritima DuMont sea blite

Tanacetum douglasii DC. northern dune tansy Taroxacum officinale Weber

common dandelion

Teucrium canadense L. germander

Teucrium cubense Jacq.

Thelesperma filifolium (Hook.) Gray green-thread

Thelypteris normalis (C.Chr.) Moxley

Thespesia populnea (L.) Sol. ex Correa. seaside mahoe

Thlaspi arvense L. field pennycress

Tillandsia usneoides L. Spanish moss

Trandescantia hirsutiflora Bush

hairy flower spiderwort
Trandescantia ohiensis Raf. spiderwort

Trepocarpus arethusae Nutt. nuttall

Trichostema suffrutescens Kearney blue curl

Trifolium agrarium L. yellow clover

Trifolium hybridum L. Alsike clover

Trifolium pratense L. red clover

Trifolium repens L. white clover

(sheet 34 of 46)

Vulnis octollers (Walts) Bhdb.

Wedalla tribodata (L.) Afficack :

PROPERTY.

Trifolium wormskjoldii Lehm.
springbark clover
Ulex europaeus L.
gorse
Urena lobata L.
Caesar weed

Urtica chamaedryoides Pursh.
heartleaf nettle

Urtica dioica L.

stinging nettle

Valerianella stenocarpa Mill.

corn salad

Verbascum thapsus L.

common mullein

Verbena bonaniensis L.

vervain

Verbena brasiliensis Vellozo
vervain

Verbena halei Small
Texas vervain
Verbena hastata

Verbena hastata L.
blue vervain
Verbena scabra Vahl.
vervain

vervain

Veronia altissima Nutt. ironweed

Veronica americana Schwein. American brooklime

Veronica peregrina L.
purslane speedwell

Vicia americana Muhl. vetch

Vicia angustifolia Richard vetch

Vicia gigantea Hook.

giant vetch

Vicia leavenworthii T. &.G. Leavenworth vetch

Vicia ludoviciana Nutt.

deer pea vetch

Vicia sativa L.

common vetch

Vigna luteola (Jacq.) Benth. cow pea

Viola sp. violet

Vulpia octoflora (Walt.) Rhdb. vulpia

Wedelia tribobata (L.) Hitchcock

(sheet 35 of 46)

Xanthium strumarium L. Will N. Carrett Strange aucharitant cocklebur

VINES

Ampelopis arborea (L.) Rusby peppervine Ampelopis cordata Michx. simple-leaved peppervine

Berchemia scandens (Hill) Trelease supplejack

Campsis radicans Seem. trumpet creeper

Celastrus orbiculatus Thunb.

bittersweet Cissus incisa (Nutt.) Des Maulins marine vine

Convolvulus sepium L. hedge bindweed

Convolvulus soldanella L.

Pacific morning glory

Cuscuta cuspidata Engelm. cusp dodder

Cuscuta obtusiflora HBK. common dodder

Cuscuta pentagona Engelm. field dodder

Cynanchum palustre (Pursh.) Heller climbing milkweed

Ficus aurea Nutt.

strangler fig ea alba L. vine milkweed Ipomoea alba L.

vine milkweed
Ipomoea pes-caprae (L.) R. Br. railroad vine

Ipomoea sagittata Lam.

saltmarsh morning glory

Ipomoea stolonifera (Cyr.) Gmel.

beach morning glory

Ipomoea trichocarpa Ell.

sharppod morning glory

Inomoea trilebate I

Ipomoea trilobata L. wild morning glory

Ipomoea tuba (Schlect.) G. Don moonflower

Lonicera japonica Thung. Japanese honeysuckle

Menispermum canadense L. Canada moonseed

Menispermum carolinum L. Carolina moonseed

(sheet 36 of 46)

Parthenocissus inserta (Kern.) K. Fritsch. woodbine

Parthenocissus quinquefolia (L.) Planchon Virginia creeper

Rhus radicans L. poison ivy

Smilax auriculata Walt.
wild bamboo

Smilax bona-nox L. fringed cathriar

Smilax hispida Muhl. catbriar

Smilax rotundifolia L. common greenbriar

Vitus aestivalis Michx. summer grape

Vitus labrusca L. fox grape

Vitus riparia Michx. riverbank grape

Vitus rotundifolia Michx. muscadine

Vitus vulpina L. frost grape

SHRUBS AND SMALL TREES

Acacia smallii Isely. Texas huisache

Agave americana L. century plant

Agave americana var. marginata Trel. marginated century plant

Alnus rubra Borg. red alder

Alnus serrulata (Ait.) Willd. alder

Alnus sinuata (Reg.) Rydb. alder

Amelanchier canadensis (L.) Medic. serviceberry

Amelanchier laevis Wieg.

Aralia spinosa L.

devil's walking stick

Arbutus menziesii Pursh.

arbutus

Atriplex polycarpa (Torr.) Wats. shrub orache

Avicennia germinans (L.) Stern. black mangrove

(sheet 37 of 46)

Baccharis angustifolia Michx. groundsel gree

Baccharis neglecta Britton Roosevelt groundsel

Baptisia leucophaea Nutt.

wild indigo Berberis thunbergii DC.

barberry

Betula occidentalis Hook.

Callicarpa americana L.

American beautyberry
Catalpa speciosa Warder

catalpa

Cephalanthus occidentalis L. buttonbush

Chicocca alba (L.) Hitchcock snowberry

Citrus sinensis (L.) Osbeck citrus

Conocarpus erecta L. buttonwood

Cornus amomum Mill. swamp dogwood

Cornus drummondii C. A. Meyer
rough-leaved dogwood
Cornus florida (I.) Pof

Cornus florida (L.) Raf. flowering dogwood

Cornus nuttallii Aud. ext. & G.
Pacific dogwood
Cornus obliqua Raf.

silky dogwood Cornus racemosa Lam.

gray dogwood

Cornus rugosa Lam.

round-leaved dogwood

Cornus stolonifera Michx.

red osier dogwood

Crataegus fabellata (Bosc.) Koch.

hawthorn Cytisus scoparius (L.) Link Scotch broom

Eleagnus angustifolia L. Russian olive

Eleagnus pungens Thunb. thorny olive

Eleagnus umbellata Thunb. autumn olive

Ficus carica L. fig

(sheet 38 of 46)

Forestiera acuminata (Michx.) Poir.

swamp privet

Forestiera angustifolia Torrey

desert olive

Forestiera segregata (Jacq.) Krug & Urban

Florida privet

Gaultheria shallon Pursh.

salal

Hibiscus moscheutos L.

marsh hibiscus

Hypericum drummondii (Grev. & Hook.) T. &. G.

nits and lice

Hypericum gentianoides BSP

orange grass

Hypericum hypericoides (L.) Crantz

Hypericum mutilum L.

St. John's wort

| Cum mutilum L.
| dwarf St. John's wort

Hypericum perforatum L.

common St. John's wort

Ilex cassine L.

dahoon

Ilex decidua Walt.

possumhaw

Ilex glabra (L.) A. Gray

gallberry
Ilex vomitoria Ait.

Iva angustifolia DC.

narrowleaf marsh elder

Iva frutescens L.

marsh elder

Iva imbricata Walt.

seacoast marsh elder
Juniperus communis L.
common juniper

Juniperus horizontalis Moench.

creeping juniper

Laguncularis racemosa Gaertn.

white mangrove

Lantana camara L.

shrub verbena

Lantana horrida HBK

Texas lantana

Lantana involucrata L.

lantana

Lantana ovatifolia Britton lantana

lantana

Lindera benzoin Blume

spicebush

(sheet 39 of 46)

Lonicera x bella Zabel honeysuckle Lonicera involucrata (Richards) Banks
bearberry honeysuckle Lonicera tartarica L. Tartarian honeysuckle
Malus angustifolia Michx. crabapple Melia azedarach L. chinaberry tree Morus alba L. white mulberry Myrica cerifera L. wax myrtle Myrica pensylvanica Loisel. bayberry Myricanthes fragrans (Sw.) McVaugh naked wood Nerium oleander L. oleander Ostrya virginiana (Mill.) Koch eastern hophornbeam Phoradendron flavescens (Pursh.) Nutt. American mistletoe Physocarpus capitatus (Pursh.) Kuntze Pacific nine-bark Physocarpus opulifolius (L.) Maxim. nine-bark Pinus clausa (Chapm.) Vasey sand pine Pinus virginiana Mill. shore pine Poinsettia heterophylla (L.) Kl. & Garke. Prosopis glandulosa Torrey honey mesquite Prunus americana Marsh.

American plum

Prunus caroliniana Ait. cherry laurel Prunus maritima Wang. beach plum Prunus pumila L.
sand cherry
Prunus virginiana L.
common chokecherry
Psidium guajave L.

Quercus acutissima Carruthers

(sheet 40 of 46)

sawtooth oak

Quercus laevis Walt. turkey oak

Rhamnus purshiana DC. Banna (alamanara) ana manarana ana ana cascara buckthorn

Rhizophora mangle L. red mangrove

Rhus copallina L. shining sumac

Rhus radicans L.

shrub poison ivy

Rhus typhina L.

staghorn sumac

Ribes americanum Mill.

wild black current

Ribes lacustre (Purch) P.

Ribes lacustre (Pursh.) Poir. swamp gooseberry

Ribes sanguineum Pursh. red currant

Rosa acicularis Lindl. prickly rose

Rosa blanda Ait. meadow rose

Rosa bracteata Wendl. Macartney rose

Rosa carolina L. Carolina rose

Rosa gymnocarpa Nutt. baldhip rose

Rosa multiflora Thunberg multiflora rose

Rosa palustris Marsh. swamp rose

Rosa rugosa Thunb. wild rose

virginiana Mill.
wild Virginia rose Rosa virginiana Mill.

Rubus argutus Link blackberry

Rubus bifrons Vest blackberry

Rubus cuneifolius Pursh. sand blackberry

Rubus discolor Weihe & Nees
Himalayan blackberry

Rubus flagellaris L. northern dewberry

Rubus idaeus var. canadensis Richardson raspberry

(sheet 41 of 46)

Rubus laciniatus Willd. Sophera recembers L. evergreen blackberry Rubus leucodermis Dougl. black raspberry Rubus occidentalis L. black raspberry Rubus spectabilis Pursh. salmonberry Rubus trivalis Michx. southern dewberry Rubus ursinus Cham. Schlecht blackberry Sabal palmetto (Walt.) Lodd. ex Schult. cabbage palm Salix alba L. white willow Salix amygdaloides Anders peachleaf willow Salix fragiles L. crack willow Salix hastata L. halberd-leaved willow Salix hookeriana Barratt Hooker willow Salix interior Rowlee sandbar willow Salix lasiandra Benth. Pacific willow Salix nigra (L.) Marsh. black willow Salix rigida Muhl. willow Salix scouleriana Barratt Scouler willow Sambucus callicarpa Greene elderberry Sambucus canadensis L. American elderberry Sambucus pubens Michx. red elderberry Sambucus racemosa L. coast red elderberry Sambucus simpsonii Rehd. Florida elderberry Sapium sebiferum (L.) Roxb. Chinese tallow tree Schinus terebinthifolius Reddi. Shepheria canadensis (L.) Nutt.

(sheet 42 of 46)

buffaloberry

Sophora tomentosa L. yellow sophora

Sorbus americana Marsh. American mountain-ash

Sorbus aucuparia L.

European mountain-ash

sitchensis Roem. Sorbus sitchensis Roem.
Sitka mountain-ash

Spiraea tomentosa L. spiraea

Symphoricarpos albus (L.) Blake

Tamarisk africana Poir. athel

Tamarisk chinensis Lour. Chinese tamarisk

Tamarisk gallica L. tamarisk

Tamarisk parviflora saltcedar

Terminalia catappa L. Indian almond

Vaccineum corymbosum L. highbush blueberry

Vaccinium myrsinites Lam. ground blueberry

Viburnum edule (Michx.) Raf.
highbush cranberry

Yucca aloifolia L. aloe

Yucca pendula Groenl. yucca

Yucca treculeana Carr Spanish dagger

Zanthoxylum clava-herculis L. toothache tree

LARGE TREES

Acer negundo L. boxelder

Acer rubrum L. red maple

Acer saccharum Marsh. sugar maple

Acer saccharinum L. silver maple

attigue parentation and medali. Aitanthus altissima (Mill.) Swingle Sheperra caradegas ...) Nice. tree of heaven

Betula nigra L. river birch

(sheet 43 of 46)

Carya cordiformis (Wang.) K. Koch bitternut hickory

Casuarina equisetifolia Forst.

Australian pine

Celtis laevigata Willd

Celtis laevigata Willd.

hackberry

Celtis lindheimeri Engelm.

Lindheimer hackberry

Celtis occidentalis L.

sugarberry

Celtis pallida Torrey

desert hackberry

Chamaecyparis lawsoniana

Port Orford cedar

Port Orford cedar

Diospyros virginiana L.

persimmon

persimmon
Fagus grandifolia Ehrh.

American beech

Fraxinus americana L.
white ash

Fraxinus latifolia Benth.

Oregon ash

Fraxinus pennyslvanica Marsh.

green ash

Gleditsia tricanthos L. honeylocust

Juglans nigra L.

black walnut.

Juniperus silicicola (Small) Bailey

southern red cedar

Juniperus virginiana L.

eastern red cedar

Liquidambar styraciflua L.

sweetgum

Liriodendron tulipifera L.

tulip poplar

Morus rubra L.

red mulberry

Persea borbonia (L.) Sprengel

redbay

Phoenix canariensis Chap.

ornamental data palm

Phoenix dactylifera L.

data palm Phoenix reclinata L.

reclinata palm

Picea sitchensis (Bong) Carr

Sitka spruce

Pinus contorta Dougl.

lodgepole pine

(sheet 44 of 46)

Pinus elliottii Engelm. slash pine Pinus nigra Austrian pine Pinus palustris Mill.
longleaf pine Pinus resinosa Ait. red pine Pinus taeda L. loblolly pine Platanus occidentalis L.

American sycamore

Populus balsamifera L.

balsam poplar balsam poplar Populus deltoides Marsh. eastern cottonwood Populus grandidentata Michx. bigtooth aspen
Populus tremuloides Michx. quaking aspen

Populus trichocarpa T. &. G.

black cottonwood

Prunus serotina Ehrh.

black cherry Pseudotsuga menziisii (Mirb.) Franco Douglas fir Douglas fir
Quercus bicolor Willd.
swamp white oak Quercus laurifolia Michx.

laurel oak

Quercus macrocarpa Michx. bur oak Quercus nigra L. water oak Quercus nuttallii Palmer Nuttall oak Quercus palustris DuRoi. Quercus phellos L.
willow oak Quercus rubra L. red oak Quercus shumardii Buckl.
Shumard oak
Quercus velutina Lam.
black oak black oak Quercus virginiana Miller Robinia pseudo-acacia L. Dlack locust

(sheet 45 of 46)

Sassafras albidum Nutt.

sassafras

Tamarisk ramosissima Ledeb.

saltcedar

Taxodium distichum (L.) Richard

bald cypress

Thuja occidentalis L.

northern white cedar

Tilia americana L. basswood

Tsuga heterophylla (Raf.) Sarg.

western hemlock

Ulmus americana L.

American elm

Ulmus rubra Muhl.

red elm

Washingtonia robusta Wendl.

Mexican windmill palm

In accordance with letter from DAEN-RDC, DAEN-ASI dated 22 July 1977, Subject: Facsimile Catalog Cards for Laboratory Technical Publications, a facsimile catalog card in Library of Congress MARC format is reproduced below.

Landin, Mary C
Annotated tables of vegetation growing on dredged material throughout the United States / by Mary C. Landin. Vicksburg, Miss.: U. S. Waterways Experiment Station; Springfield, Va.: available from National Technical Information Service, 1978.

155 p.: ill.; 27 cm. (Miscellaneous paper - U. S. Army Engineer Waterways Experiment Station; D-78-7)
Prepared for Office, Chief of Engineers, U. S. Army, Washington, D. C., under DMRP Work Unit No. 4F05.
References: p. 6-9.

1. Dredged material. 2. Plants (Botany). 3. Tables (Data).
4. Vegetation. 5. Vegetation establishment. 6. Waste disposal sites. I. United States. Army. Corps of Engineers. II. Series: United States. Waterways Experiment Station, Vicksburg, Miss. Miscellaneous paper; D-78-7.
TA7.W34m no.D-78-7